July 26, 1930 Vol. LXXVIII, No. 4

Textile World

Published every Saturday by Bragdon, Lord & Nagle Company,
Division of McGraw-Hill Publishing Company, Inc., New York
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The Rayon Price Cut

THE much-rumored price reduction in rayon has materialized. The list price of the key number, 150-denier 24-filament first quality, breaks $1 for the first time—being listed at 95 cents, a drop of 20 cents.

The background of this cut is a complicated one.

Early in the year, the rayon market was completely demoralized. Reports of sub-rosa price-cutting and selling of first quality yarn at second quality quotations, in order to move stocks, were rife. These reports, coupled with rumors of an impending list reduction, removed the last trace of stability, the greatest potential asset of a man-made fiber.

In our issue of March 29, 1930, under the heading "Action, Not Words, Needed in Rayon," we stated:

"If rayon manufacturers find themselves at present with excessive stocks which they feel obliged to move at prices below list quotations, they should announce immediately a reduction which would be sufficient to guard against another cut in the near future; and they should then adhere strictly to the new levels. If, on the other hand, they feel under no necessity to move such stocks as may have accumulated, and in fact feel that it is economically unsound to sell below existing list prices, they should take steps immediately to curtail their production to balance with apparent demand and meanwhile should adhere without exception to list quotations."

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The producers chose, at least in part, the latter alternative. To their credit it should be stated that production schedules were sharply curtailed. One large producing company operated its plants at 60% capacity, and later cut to 50%. The fact-finding facilities of the new association were apparently utilized. In addition, rumors of sub-rosa price cutting diminished—although they did not disappear. The basic tone of the market temporarily improved.

Unfortunately, however, a new factor was injected into the situation—the collapse of the raw silk market. Rayon manufacturers, without any blame on their part, found themselves in an unsatisfactory competitive position. In addition, a new wave of price-cutting was reported.

It is to these developments that necessity for this week's cut in rayon is largely ascribed. Most certainly they had to be considered. However, there is a more vital and more fundamental question involved: Do the new prices represent a basis on which the rayon industry can operate at a fair profit? If they do, the action was a sound one, although somewhat belated. If they do not, the cut will prove to be a boomerang to both producers and users.

We cannot answer that question. The rayon manufacturers can.

Our hunch is that the larger companies figure they can make a fair profit at the new levels if the expected increase in business materializes, permitting them to operate their plants more nearly to capacity.

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The one misgiving we always have, in connection with rayon prices, is the fear that they will be reduced below the level permitting proper allowance for the two most important factors in synthetic fiber development: obsolescence and research. In no branch of industry is equipment subject to so high a rate of mortality as in rayon. In no branch is a continuing program of research more vital. The art is in a state of flux—and will continue to be for some time. Provision for scientific investigation is as necessary as is purchase of raw materials. In this progress, not only rayon producers but users are concerned.

Consequently, we urge textile manufacturers to show consideration for rayon companies—not out of philanthropy, but out of selfishness. Quite naturally, they want to buy their raw material as low as possible—and certainly as low as their competitors do—but they do not want to retard progress in one of the basic phases of their industry.

The rayon market *should* be stable, following this week's cut. Certainly, no one can accuse the yarn producers of profiteering, on today's prices. Consequently users should be satisfied with this combination of stability and reasonable price, and should not exert buying-pressure to bear quotations below a level which will permit the development outlined above.

The Week in Textiles

Outlook . . .

TONE IN cotton goods market better due to spurt in demand last week for print cloth and colors, but heat wave lessened interest. . . . . Raw cotton awaits government report. Williams says Farm Board will not sell at present. . . . . Trade slack in wool goods and interest centered on American Woolen's low prices in spring openings. Raw wool continues firm. . . . . Knit goods dull. . . . . Raw silk shows signs of life. Speculation on influence of rayon cut.

Wool Fabric Production Up . . .

IT IS pleasant to pore over statistics which offer a little cheer amid the general gloom. Preliminary figures released by the Wool Institute show that June production of all fabrics was 29% greater than May, billings were up 17% and stocks down 0.5%. . . . . The greatest increase in production occurred in women's wear woolens which showed a 41% gain, but the billings did not climb so rapidly and stock accumulated to the extent of 9% larger than May. Stocks in all the other items declined.

Spindle Activity Low . . .

ACTIVE SPINDLE hours for June are reported by the Department of Commerce as 5,778,524,384 compared with 6,729,109,384 for May which had previously represented the low point. . . . . Reduced to percentage the month shows 76% of single shift capacity, as compared with 83% for May, 96% for April, 92% for March, 97% for February, 100% for January and 104% for June, 1929. . . . . The Association of Cotton Textile Merchants of New York points out that, translated into terms of cloth, approximately 208,000,000 yd. less were produced than the previous June and for the period Aug. 1 to June 30 the curtailment amounted to 844,000,000 yd. Stocks, however, are still excessive.

Textile Foundation Plans . . .

ASSETS OF the new Textile Foundation have been invested and sufficient income will be available in October to meet operating expenses, states Stuart W. Cramer, one of the five directors of the Foundation. Reports on by-laws and organization details will be ready for presentation at a special meeting which will be called some time that month. By that time it will be possible to outline the Foundation's plans and policies for textile research. . . . . With a view to co-ordinating its own research work, which centers on raw materials, with the program of the Foundation, the Department of Agriculture has organized a committee to review the research projects now under way and to consider future needs.

Cotton Industry Making Progress . . .

THE COTTON industry, as a whole, has come to realize the necessity of co-operative effort to overcome its difficulties, stated Dr. Geo. S. Mitchell, of Columbia University, speaking before a labor conference at Bryn Mawr (Pa.) College, July 20. The vigor with which this effort is being prosecuted carries a high probability of solution of the problems, he said. . . . . Rationalization means to him, he remarked, not only the balancing of supply and demand but the effecting of every practical economy in operation and organization. . . . . He advised labor to give more attention to the problem of economies within each mill. "Through all industry in the last few years," he stated, "economies of operation have been realized wholesale —sometimes with democratic consultation and cooperation of the workers, sometimes autocratically. Any union which impedes this movement stands to destroy itself and its mill—more probably itself."

The Business Outlook

"Business is running true to form in mid-summer of a depression year. Building continues well sustained, somewhat beyond the point of seasonal decline, and the fair volume of contracts placed in the first half will exert their force upon general business from now on. Our index of general business activity, falling from 96.4% to 93.4% of normal, this week, will probably continue to decline till August. But business sentiment has perceptibly freshened as the thermometer has dropped. Commodity prices are firmer. The stock market, reflecting improved business sentiment, is beginning to gather its scattered and shorn flock of lambs and to discount greener pastures ahead—probably a bit too soon, considering how corporation profits have wilted this summer.

—The Business Week

Cottons for Men's Wear . . .

COMFORT AND economy have joined hands to influence the wearing of more cotton clothing by men this year and, according to the results of a survey recently announced by C. K. Everett, of The Cotton-Textile Institute, there is a growing acceptance of cotton fabrics by men who are looking for comfort, as well as for quality and style. . . . . "A recent survey of some of the leading men's shops in New York City," the report states, "discloses that there is a substantial interest this summer in light-weight suits and sports wear for men. One well-known Fifth Avenue store has introduced a new line of fine cotton duck trousers, well tailored and made to retail for $10 per pair. This same store has also introduced a new line of light-weight colored suits for beach and country wear." . . . . Lisle hose in solid colors with clocks were very smart last season at Palm Beach, and it was pointed out that the

sustained vogue for knickers has reached the point where many sportsmen are returning to "slacks" or long trousers of duck or flannel for golf-wear.

These Looms Ran . . .

THE STORY tells of a textile town where certain silk looms pounded day and night. The curious, peering through the dirty windows, judged that the fabric must be of gossamer fineness, for none was visible. And so one day came an emissary of the government who investigated further and found a large and active still behind the camouflage. . . . . If there is any moral in this almost legendary tale it must center about the exhortation to produce only to suit demand.

Wool Futures Market . . .

PROGRESS HAS been made in the proposal of the New York Cotton Exchange to set up a wool futures market. After a series of conferences a tentative plan has been developed. The unit of trading would be 5,000 lb. of tops conditioned at 15%; the standard merino blood, allowing the admittance of $\frac{1}{2}$ blood within the frame of 8% appreciation and 5% depreciation. Trading would be in New York, but delivery in Boston. . . . . While there is more interest in the plan now than previously the industry, as a whole, continues somewhat aloof, although present indications are that the market will actually be set up.

Machinery Investigation Progressing . . .

WITH CLEVELAND as the base of operations another survey of depreciation and obsolescence in knitted outerwear machinery is being undertaken by the Department of Commerce. The field study, comparable in scope to that carried on in Philadelphia recently in which 1604 machines were examined, has been completed. Analysis and compilation of the facts resulting from the Cleveland study is now going on. . . . . A third survey may be instituted in Brooklyn later on, if conditions warrant. Should this materialize, observations may be drawn from the facts disclosed by these surveys of the key cities of knitted outerwear manufacture which will affect all types of textile machinery.

Fine mesh hose of Durene by Pilling & Madeley, Philadelphia

Australian Tariff Results . . .

REPORTS FILTER in that Australians are pleased with their new tariff which materially increased rates on merchandise entering that commonwealth. . . . . Considerable effort is being directed towards putting the slogan "Made in Australia" across. One department store executive, certainly not to be accused of pessimism, says that, "passers-by no longer glance at a store window with a tolerant good nature, but instead they seem to take pride in knowing that the work has been done by their fellow Australians and where they once scorned goods with 'Made in Australia' marking they now demand it, in most instances."

With The Merchandisers . . .

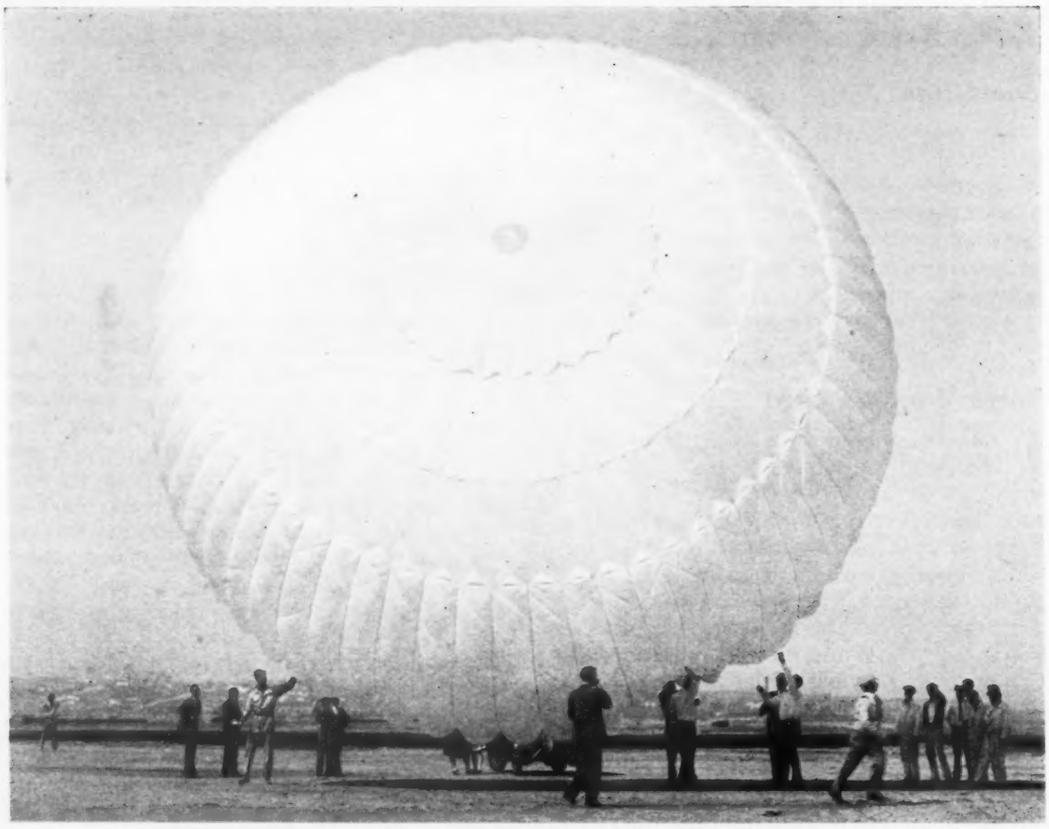
HOLEPROOF HOSIERY CO., are marketing self-supporting men's hose which have an elastic band at the top. They are called "Autogarts" and it is claimed that the rubber will withstand washing and that the socks are comfortable and neat. . . . . Pequot Mills have come out with the "Night-Spread," the purpose of which is to serve as a protection and decoration for the blankets. The company has also announced new gift boxes for sheets.

Fall Hosiery Colors . . .

HOSIERY PRODUCERS who glorify the limbs of the American girl will offer her numerous attractive new shades this fall, according to the 1930 fall hosiery color card just announced by the Textile Color Card Association. The card portrays twelve colors, the new shades being Caresse, Oak Rose, Acajou, Nightingale, Mauve Biege, Promenade, Brownleaf and Bahama. As the names suggest, these are brown, gold and tan range. . . . . Four popular shades which have been repeated are Sable, Rendez-vous, Duskee and Beige Clair. . . . . The card also lists eighteen standard shades which lean to the darker tones.

Industrial Expansion in Russia . . .

COTTON SPINNING, wool weaving and cement manufacturing were the only important industries in Soviet Russia which did not show an increase in production during the first half of the current fiscal year (Oct. 1, 1929-March 31, 1930) as large as that scheduled under the Five-Year Plan of industrial expansion, according to figures published in the *Economic Review of the Soviet Union*, an official organ of The Amtorg Trading Corp. . . . . Industrial production under the supervision of the Soviet Supreme Economic Council showed an increase of 29% over the corresponding six months of the preceding year, but the total of cotton yarns produced revealed an increase of only 8.9%, while wool weaving gained but 14%. . . . . Cotton cloth output was reported at 1,551,600,000 meters during the six-month period—a gain of 11.5%.



Triple Valve Plane Chute

Trustworthiness in Fabrics

Vital in Parachute Use

By John Black

Assistant Editor, TEXTILE WORLD

PUBLICATION in TEXTILE WORLD recently of an article describing the needs of the aviation industry of textile fabrics for aircraft construction, evoked such interest among weavers, as to suggest the call for another article, this time presenting the needs of the parachute industry, as regards fabrics most suited for the manufacture of "chutes." Inquiry among the principal parachute manufacturers resulted in the assembling of valuable data on this score, and also established the growing importance of the parachute industry as a consuming market for textiles.

One outstanding feature of the data herein offered in statements by leading manufacturers is that it reveals an interesting difference of opinion as to which fabric is most adaptable to the needs of the parachute industry. Silk, cotton and linen have been experimented with over a period of years; as regards linen, the Russell Parachute Co. of California, reports: "Linen is not given consideration, due to its susceptibility to mildew, and other unfavorable traits." This narrows the choice down to silk and cotton, and it is between these two that the division now rests.

The sponsors of silk, which has long been the accepted parachute fabric, find a strong ally in George Waite, president of the Irving Air Chute Co., Buffalo, N. Y.

Mr. Waite presents his views in the following analysis of the fabric needs of the trade:

Fabric Must Be Strong

"The parachute fabric must be strong. In the Irving air chute, it is required that the chute must open promptly and be capable of withstanding the shock incurred by a 200 pound load falling at the rate of 400 miles per hour. It must be a type of fabric which will reduce to the smallest amount of occupied space in packing so as to give the maximum comfort to the wearer and permit him to leave the aircraft with the least difficulty. The fabric must be as light in weight as possible consistent with required strength. It should have the proper porosity, approximating the ideal under the most adverse conditions. It must be sufficiently porous to allow a certain amount of air to escape through it even when it is wet, otherwise, under exceptional strains, it is possible that the fabric might split. In other words it cannot be woven too tightly nor too loosely.

"The fabric should not absorb moisture unduly, shrink

Army and Navy Parachute Cloth Requirements

U. S. Army Specification No. 7-8-G (Feb. 1, 1929)—Silk for Parachutes

III. MATERIAL AND WORKMANSHIP.

1. Finish.—The cloth shall be thoroughly "boiled-off," and shall be free from gums, starches, etc.

2. The fabric shall be free from all imperfections affecting its strength and durability.

V. DETAIL REQUIREMENTS.

1. Weave.—The weave shall be plain, or taffeta.

2. Weight.—The weight of the finished material per square yard shall be 1.45 oz. A tolerance of plus 10% or minus 5% will be allowed.

3. Width.—The overall width of the finished cloth shall be not less than 36 in. nor more than 37 in.

4. Length of Roll.—Each roll of finished cloth shall contain approximately 300 yd. made of 50 yd. piece lengths.

5. Construction: (a) Warp.—The warp shall be gum singles silk, woven as a double end. The finished cloth shall contain 120 double ends per inch. A tolerance of plus 10% or minus 5% will be allowed.

(b) Filling.—The filling shall be gum singles silk of the grade known as Doppioni, and shall be doubled 3 ends per thread. A twist of 1½ turns per inch is recommended. The finished cloth shall contain 90 doubled threads or picks per inch. A tolerance of plus or minus 10% will be allowed.

6. Tensile Strength.—The average tensile strength of five specimens from each direction of the fabric shall be 40 lb. per inch in the warp, and 50 lb. in the filling. A tolerance of minus 5 lb. will be allowed for both the warp and filling strengths.

7. Tear Resistance.—The average resistance to tear of five specimens from each direction of the fabric shall be 4 lb. across the warp, and 6 lb. across the filling. A tolerance of minus 1 lb. will be allowed for the tear resistance in each direction.

VI. METHOD OF INSPECTION AND TESTS.

4. Tensile Strength.—Tensile strength shall be made in accordance with the requirements of the "strip" method in U. S. Army Specification No. 8-49, General Specification for Textile Materials.

5. Tear Test.—Resistance to tear is measured by the "strip tear" method. A specimen 3 in. wide by 8 in. long is cut 3 in. down the center, 1½ in. from each edge. One cut end is placed in one jaw of the test machines, and the second cut end is placed in the other jaw of the test machine. Resistance to tear is measured by the average load necessary to continue the tear, by separation of the jaws at a speed of 12 in. per minute. The pendulum of the test machine shall be free to oscillate during the test.

Navy Bureau of Aeronautics Specification C-37a (Apr. 25, 1929)—Silk Parachute Cloth

2. TYPES.

Silk cloth shall be furnished in one grade only, known as firsts, and in the following types:

(A) Plain weave.

(B) Basket weave (modified).

3. MATERIAL AND WORKMANSHIP, ETC.

(a) The silk used in the manufacture of these cloths shall be the highest grade white Japan, or an equivalent grade of China or Italian silk.

(b) The cloth shall be thoroughly boiled off to remove gums, greases, etc., and there shall be no sizing or weighting materials of any description present in the finished cloth. The cloth shall be finished without the application of excessive heat, and shall present a smooth surface after finishing.

(c) The fabric shall be free from all imperfections affecting its strength or durability.

(d) Workmanship shall be in accordance with high grade manufacturing practice.

4. GENERAL REQUIREMENTS.

(a) The color of the silk shall be a natural unbleached white.

(b) The finished width shall be not less than 36 and not more than 37 in. to the outside of selvage edges. No length shorter than 50 yd. will be accepted.

5. DETAIL REQUIREMENTS.

(a) Type (A) cloth shall be plain weave.

(b) Type (B) cloth shall be a modified basket weave, the 1st and 3rd threads one down and one up, the 2nd thread three up and three down, the 4th and 6th threads one up and one down, and the 5th thread three down and three up.

(c) The weight per square yard of the finished cloth shall be as follows:

Plain weave	1.55 oz. plus or minus 10%
Basket weave	1.70 oz. plus or minus 10%

(d) The threads per inch shall be as follows:

	Warp	Filling	Tolerance
Plain weave	120	90	10%
Basket weave	96	105	10%

(e) The minimum breaking strength of the finished cloth shall be as follows in pounds per inch width:

	Warp	Filling
Plain weave	45	45
Basket weave	53	53

(f) Minimum resistance to tear in pounds shall be as follows:

	Warp	Filling
Plain weave	3	4
Basket weave	7	9

The above quotations from the Federal specifications are complete as far as they go but they are are not the entire specification, further details being required regarding testing, packing, marking, etc.

or change its characteristics, no matter what the conditions may be. It should also be flame resisting, and should have long life; it should be able to retain efficiency for months and even years without dangerous deterioration.

Holds Silk Meets All Needs

"So far as research conducted by the Irving Air Chute Co., Inc., indicates, silk is the one fabric which best fulfills all of these requirements. Thus far this fabric has had to be imported. This is a handicap in many respects and this company would naturally be interested in any other fabric which would equal or surpass silk in its efficiency for this vital purpose.

"It might be well to add here that extensive research has been conducted in collaboration with an American cotton fabric manufacturer and a satisfactory fabric has been produced which will well serve the parachute maker's purpose, should his supply of silk be cut off in time of war or for any other reason. While this fabric may be used, and marks a vast improvement over most substitute fabrics, it is still far behind silk in desirability.

"Pure white, or pongee-color silk is used for our chutes. No chemical treatments or 'doctoring' of the material is tolerated on the part of the foreign makers and Irving management has found that chemicals suggested for treating silk for various purposes lessen, in some manner, its efficiency for parachute purposes. They usually decrease its strength and shorten the life of the fabric. It is the understanding of this company that a thread of pure silk is stronger than a thread of steel of equal weight. In a product which may mean the life or death of a man or woman, strength under all conditions is of paramount importance.

"Considering strength and other features, silk is believed to be the lightest and the fabric which will fold into the smallest space of any. This is extremely important for it is conceivable that a fraction of an inch in the size of a parachute pack might mean the difference between being able to get out or being forced to stay in the small cockpit of a plane in trouble, or in getting out of the door of an unmanageable cabin plane.

Pure Silk Resists Fire

"The importance of keeping fire risk to a minimum cannot be over-emphasized. A great many of the wear-

ers of the Golden Caterpillar —those who have saved their lives with the chute—have escaped from burning aircraft. Pure silk, Irving management has found, resists fire. There are many instances in its files of persons escaping from flaming aircraft and falling fragments of the plane igniting the parachutes. In such instances, the flame has rarely, if ever, impaired the efficiency of the chute. The flame either extinguishes itself or burns so slowly as the wearer floats to earth that a safe landing is made."

Mr. Waite's views are strongly supported by numerous authorities in the parachute industry, both technicians and manufacturers. However, there is another section of the trade which offers its support, no less emphatic, to the use of cotton for parachute manufacture. J. V. Mumma, factory superintendent of the Russell company, presents an opinion which may be taken as representative of this group. In a statement prepared for TEXTILE WORLD, he writes:

"The specifications for parachute fabric as arrived at by the Material Division, United States Army Air Corps, after years of experiments and use, are used as a standard. These specifications, built around silk, follow: Weight—not over 1.5 oz. per sq. yd.; tensile strength—40 lb. per inch in both warp and fill; resistance to tear—4 lb. across both warp and fill; porosity—between 80 and 140 cu.ft. of air per minute per sq. ft. of cloth at ½ in. water pressure.

"High tensile strength and resistance to tear are not essential. Bursting strength and certain porosity are essential. However, tensile strength and resistance to tear will increase with added bursting strength. Silk, cotton and linen have all been tried in parachutes. Due to excessive weight and lower bursting strength, cotton and linen have never been used by the U.S.A.A.C. Linen, due to its susceptibility to mildew and other unfavorable traits, is not given consideration.

"The points in favor of cotton are: Cotton will resist mildew and friction burns better than silk; cotton will outwear silk, is much cheaper than silk, and is a domestic product.

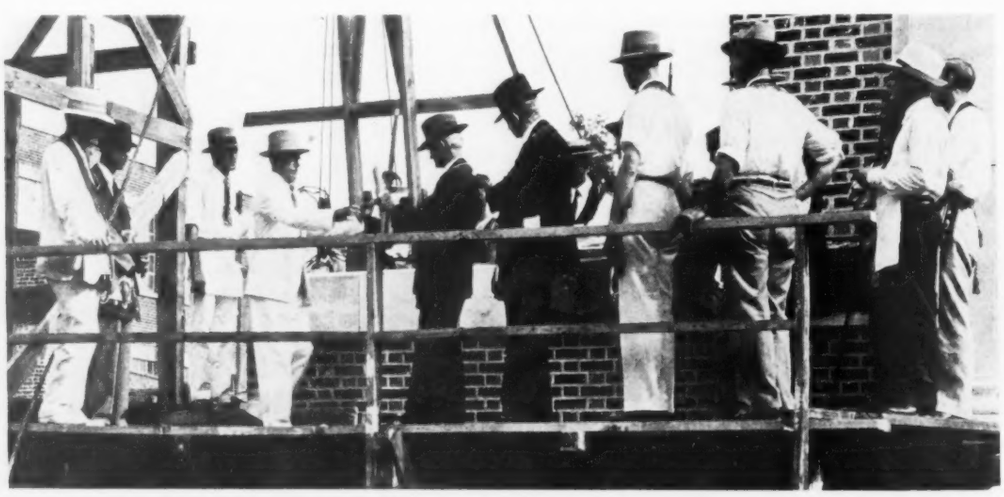
"Up until 1925 practically all the experimental and service test work in this country was conducted by the Army and Navy. As no cotton free type parachute was ever put into service by these two branches, no data on the life and wear of cotton were available.

"During the spring of 1926, the Russell Parachute Co. started production of cotton parachutes. These are now coming back to the factory for service, which gives us a chance to check up on the life of cotton parachutes. In every case where both cotton and silk parachutes were purchased at the same time, by the same people and given approximately the same service, the cotton was in far better condition.

"It has been found that with proper care and under fair climatic conditions, the life of a silk parachute is about 5 years; we believe cotton will exceed this. We believe the ideal parachute fabric would be: A cotton fabric having a weight of less than 1.5 oz. sq.yd.; a bursting strength in excess of 150 lb. per sq.in.; and a porosity of between 80 and 140 cu.ft. air flow at specified atmospheric conditions."

Henry Miller News Picture Service

Air permeability of parachute fabrics being tested at the Bureau of Standards, Washington, D. C.



Scene at laying of the cornerstone of the Textile Engineering Building, Alabama Polytechnic Institute, Auburn, Ala. Dr. Bradford Knapp, president of the institute, is at the extreme left; W. T. Warren, architect, is presenting masons' tools to James M. Pearson. The building is 60 by 300 ft., and will furnish office, classroom, laboratory and manufacturing space for the new textile school. It will be done in September

Unionization Begets Strife, Not Progress,

Says Southern Community Director

LABOR unions are not adaptable to conditions existing in the South, according to Miss Marjorie A. Potwin, director community work, Saxon Mills, Spartanburg, S. C., who delivered the feature address of the eleventh annual Southern Conference on Human Relations in Industry, held at Blue Ridge, N. C., July 17-20. The subject of Miss Potwin's address was "Friends or Foes" and it was her observation that labor organizers have displayed an attitude in complete opposition to the friendliness that is manifested among southern people.

Other talks on the program which were of particular interest were made by T. L. Hines, manager, DuPont Rayon Co., Old Hickory, Tenn., on "Developing an Industrial Relations Program," and by B. E. Geer, Greenville, S. C., president of the American Cotton Manufacturers Association, on "What Industrial Relations Has Meant to Us."

The promotion committee which was responsible for the success of the conference included three prominent textile executives as well as several other industrial leaders of the South. The textile industry was represented by C. A. Cannon, Cannon Mills, Kannapolis, N. C.; L. W. Clark, Carolina Cotton & Woolen Mills, Spray, N. C.; and B. E. Geer, Judson Mills, Greenville, S. C. E. G. Wilson, Atlanta, Ga., was executive secretary of the annual conference held at Blue Ridge.

Miss Marjorie A. Potwin

Miss Potwin's Address

Miss Potwin's remarks follow, in part:

"The hue and cry today is that the people of the South should be organized (*be organized*, not organize, you notice). Why? Looking at the matter dispassionately, what can labor get through organization that it has not already obtained, or is obtaining otherwise? What can organization *assure*, not promise, the worker, and how?

"When I was a high school girl in New England all my altruistic impulses were aroused by the claims of organized labor. I wanted it to succeed in all those good things it promised. Then I saw the unions grow powerful, so powerful that they dominated the legislature, even as they dominated the members of their organization. They stopped the wheels of industry. They choked capital. They killed wages. Women and children, crying in the cold. No work for anyone, and a textile center, once the richest of the world, died. If you would see that go to Lawrence, or Fall River, or New Bedford, or across the water to England.

"I remember the evening when as a guest of the American Academy of Political Science I thrilled to see Samuel Gompers sitting on one side of the late William Howard Taft, and Charles Schwab sitting on the other. The group fired my imagination; labor and capital, and between them, presiding with all dignity, all majesty, the court, holding the scales of justice, embodying all the great principles of right and reason guaranteed by our forefathers. But that was in the day when I held the popular misconception that organized labor is the majority of labor, rather than the small and diminishing minority which figures show it to be.

"Older, as a graduate student, I used to sit in the meetings of a labor organization in Chicago. It became rife with internal wrangling and dissension. Factions began to hate factions. Men, lifelong friends, became bitter foes. The officers of the union tried to discipline the impulsive members. They set in motion all the impelling and compelling machinery of the organization. They tried to enforce its restrictive laws. There was no freedom and no peace, and into the homes of the workmen went suffering and fear and unemployment, not from conflict with employers but from conflict among the ranks of the employed.

"I am not talking idly. Organization is the mobilization of power, force lined up to fight. Organization defined issues which once defined must be enforced. To live, organization must satisfy its most impulsive member as well as its most rational. Force begets force. You hit me and I'll hit you, you growl and I'll growl louder, you bite me and I'll bite harder. Do we want these things for the great industrial people of the South? Shall we sacrifice friendliness for them? Which is birthright and which is pottage?

"Group demands set up group denials. Professor Hoxie, a student of trade unionism, and holding a brief for neither side, says, 'The organization of employees forces the organization of employers, and vice versa.'

"There is a wide spread and mistaken idea that the employers of the South are already organized. Let us not be confused about this matter. There is no organization of employers to fix wages. There legally can be none. The employers are not organized to fix conditions of hiring and firing, or to demand efficiency or to dictate among themselves that no one of them shall outstrip the others in such things as bonuses, housing, group insurance and a hundred other costs that mean good working and living conditions. These could be controlled and restricted, but better, I think, for the employees is the disorganization which exists among the employers and in which they so compete in the labor market that to get good help they must offer good conditions and to hold good help they must ever be making them better. You know how competitive employment works to the advantage of

(Continued on page 34)

Mellon Institute of Industrial Research

Textile Research Holds Important Place at Mellon Institute

By Lawrence W. Bass

Executive Assistant,
Mellon Institute of Industrial Research

IN A recent survey of industrial research throughout the country, the National Research Council found that but 0.7% of the total capital that was invested in textile manufacturing was being spent annually on research, as compared with 1.3% for all industries, and 2.4% for chemicals and allied products. There is reason to believe, however, that textile manufacturers are awake to the concrete financial returns from sound research projects, and that a marked expansion in such activities will soon occur. In fact, a number of agencies of weight are now endeavoring to arouse adequate support for investigational programs. Their efforts have recently borne fruit in the steps taken toward the foundation of the United States Institute for Textile Research.

It is generally thought that the application of science in this field of technology will be progressively enlarged during the next five years. The cotton industry in particular seems to be cognizant of the exigent need for finding new uses for its products. Then, too, the Durene and synthetic-fiber industries are already at work on important problems of both production and merchandising.

Textile research in the broad sense has always held an important place in the work of Mellon Institute. Seven of the 63 problems under investigation at the present time have to do with problems of textile technology. In addition, several other fellowships, although not primarily engaged in textile research, have made important contributions in this field.

Researches on Textile Technology

Textile Fellowship (1922-28). This fellowship was supported by a prominent manufacturer of underwear for the study of problems concerning materials, including not only kinds of textile fabrics most suitable for this use, but also actual construction. The investigation was carried out by E. R. Clark. Part of this work, dealing particularly with the hygienic aspects of undergarments, was published in *Hygeia* (1928).

One of the most interesting sides of the problem was the economic consideration involved in the creation of an American flax industry. Clark worked out processes of treating seed flax, the by-product straw from flax raised for the manufacture of linseed oil, for the purpose of obtaining better yields of desirable qualities of linen. Many specialists are of the opinion that linen deserves a higher place among textiles and that some day there may be an important American linen industry.

Cotton-Yarn Fellowship (1925—). C. F. Goldthwait is the dean of the institute's textile investigational staff. During the past fifteen years he has contributed a number of important papers to textile literature and has been active in the affairs of the prominent national organizations. For the last five years he has been specializing in problems in Durene technology. Durene, the mercerized material that is made by an associative group of American manufacturers, has had wide acceptance and is especially valued for its luster, long life, and physical strength.

Velvet Fellowship (1928—). For the ast two years G. H. Hiers has been conducting an inquiry into the manufacture of certain kinds of fabrics for upholstering. His researches have brought to light important points in the technology of this industry, including the physico-chemical properties of mohair.

Laundering and Dry Cleaning

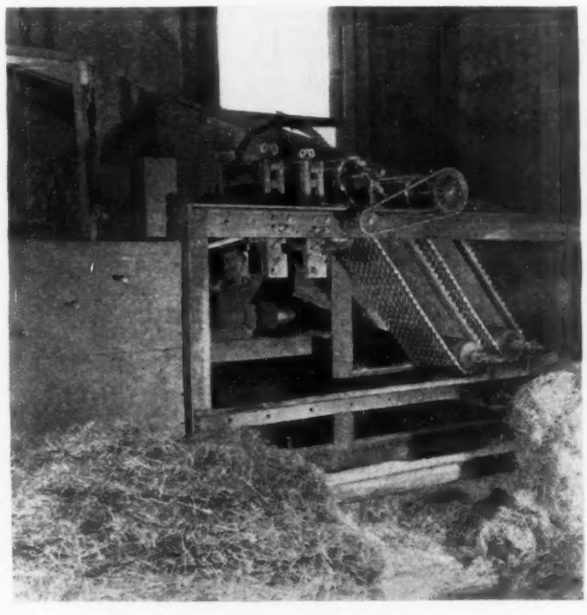
Laundry Fellowship (1915—). The Allegheny County Laundrymen's Exchange established a fellowship at the institute on Feb. 15, 1915, the work being carried out on a cooperative basis with the Laundryowners' National Association of the United States and Canada. Two years later the support of this fellowship was

taken over by the latter association, which at the present time numbers over 2,600 members.

Work of this fellowship has covered the study of laundry operations as chemical-engineering processes; of laundry supplies with reference to cost, composition, and action upon textiles; and of the effects of laundering processes on fabrics. Another important aspect of the work has been the active cooperation with textile manufacturers in regard to the determination of the launderability of their products. Publications based on the work of this fellowship, notably the washroom charts, the series of leaflets on the conservation of textiles, and the manual of washroom practice for power laundries, together with the comprehensive treatise, "Textile Fabrics," by G. H. Johnson, have been a great service to the laundryman and to the consumer of textiles.

On Nov. 1, 1929, the new research laboratories of the association were completed at Joliet, Illinois, in the building of the American Institute of Laundering. G. H. Johnson, Senior Industrial Fellow, and A. I. Anderson, Industrial Fellow, were then transferred to Joliet, where Mr. Johnson heads the research department. B. H. Gilmore is to remain at Mellon Institute to carry on research on several fundamental, long-time problems of laundry technology.

Dry-Cleaning Fellowship (1921—). Nine years ago the Mundatechnical Society of America established at the institute a fellowship to investigate from a scientific point of view the technology of dry-cleaning. This association is composed of a group of important dry-cleaning interests in both the United States and Canada. L. E. Jackson has been in charge of this research since the beginning. One of the most outstanding contributions of this group of workers has been the standardization of dry-cleaning technic. In addition to a heavy program of work relating directly to dry-cleaning technology, Jackson and his associates have developed an efficient mothproofing agent. This product, marketed under the name "Konate," is being used successfully for large scale moth-proofing operations by many dry-cleaners, warehousemen, upholsterers, and textile manufacturers. Its efficacy having been demonstrated by a long period of commercial application, it is now being marketed in household packages.



Equipment for sub-commercial study of textile-fiber processing

Cabinet used in mothproofing experiment at Mellon Institute

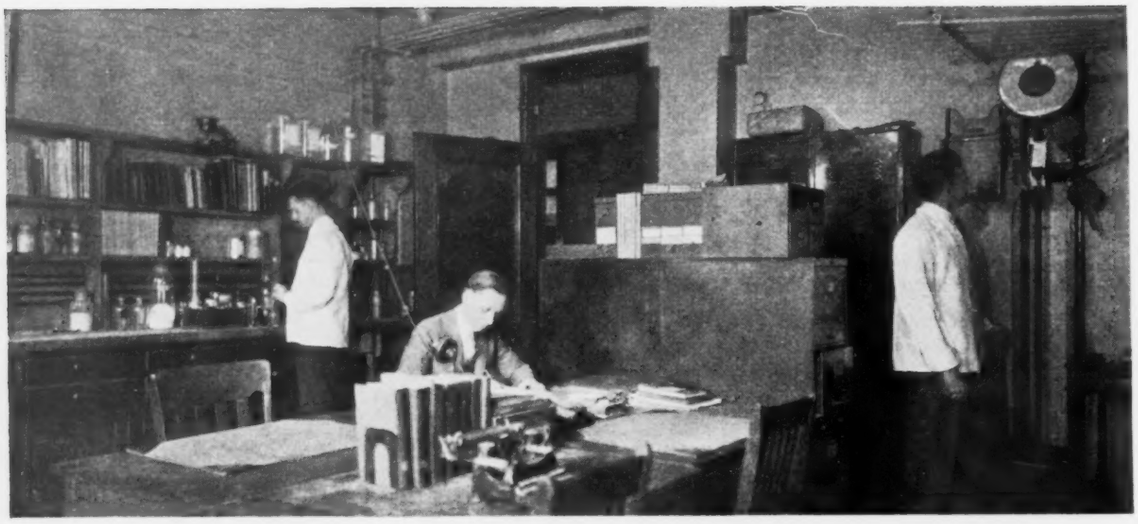
Laundry-Supplies Fellowship (1907-09). Before Mellon Institute was organized in Pittsburgh, industrial fellowships under the direction of Dr. Robert Kennedy Duncan had been operating at the University of Kansas. W. F. Faragher, the first Fellow, started his study of laundry supplies on March 15, 1907. He so demonstrated the value of research to the donor, a prominent New England company, that this concern established a laboratory for him in Boston. He remained there until 1918, when he returned to the institute to take charge of a fellowship on petroleum refining.

Research on Hat Making (1926—). T. R. LeCompte, the incumbent of an industrial fellowship supported (1926-29) by the former National Association of Hat Manufacturers, has made two important studies covering various phases of the hat industry. The most important contribution was a study of the chemical and physical properties of cut fur. It has been learned that fur, as a protein, has properties similar to those of gelatin. Therefore the shrinking, blocking, and dyeing of felts are carefully controlled through regulation of the temperature and acidity of the baths in which these operations are carried out.

Recognizing the potential industrial hazards in the use of mercury-carroted fur, R. R. McGregor, under the auspices of the American Hatters' Fur Cutters' Association, has engaged in a fundamental study (1926—) of carroting operations. As a result, the theory of this process has been clearly recognized for the first time, and definite progress has been made in devising carroting methods using only innocuous reagents.

Pressing-Machinery Fellowship (1928—). After completing the work on the textile fellowship, E. R. Clark turned to research on garment pressing and pressing machinery. A number of factors enter into the correct pressing of wearing apparel, and it has been the aim of these studies to determine all these physical influences and their proper application in correctly designed machines.

Sleeping-Equipment Studies (1924-29). A comprehen-



Laboratory in which special textile problems are studied

sive study of beds and bedding has been carried out by the "Simmons Investigation of Sleep." In the course of this research, T. H. Swan has answered many questions in regard to the textiles that can best be used as bedding materials.

Garment Fellowship (1929—). Since the completion of his researches on sleeping equipment, Swan has been carrying on an investigation of problems of the manufacture of certain kinds of wearing apparel. This work has due regard for materials, design, sanitary welfare, and comfort. Swan has been receiving the cooperative help of important textile interests.

A fellowship founded by the National Association of Stearic Acid Manufacturers in 1927 had for its object the extension of the uses of fatty acids. This investigation was completed in January of this year. The most important results were the development of triethanolamine oleate and the application of oleic acid in the textile industries. Complete particulars concerning these findings have been published.

The Organic Syntheses Fellowship, maintained by the Carbide & Carbon Chemicals Corp., has worked out practical syntheses of over 20 aliphatic compounds that are finding wide use in the industries. Some of these substances are of particular interest in the textile field. Ethylene glycol and diethylene glycol have found important uses as dye solvents and as softening or moistening agents. Diethylene glycol, in particular, is used as a lubricant for worsteds and woolens. Ethers of ethylene glycol are among the most recent chemicals developed in this investigation; they are of special value in certain dye baths.

Triethanolamine oleate, already mentioned, is a useful compound for the scouring of raw wool and for the fulling and scouring of wool and worsted cloth. Other uses of triethanolamine soaps are as emulsifying agents, as penetrants and wetting-out assistants, and as despotting agents for dry-cleaning. The free base is important because of its effectiveness as a solvent in the dyeing and printing industry. Dichloroethyl ether and ethylene dichloride are being applied in textile manufacturing in scouring and fulling soaps and as wetting-out agents and penetrants. The vinylite resins are destined to wide application as impregnating materials for fabrics.

Unionization Begets Strife, Not Progress, Says Dr. Potwin

(Continued from page 31)

the employee, even to you and me and all the rest of us.

"There are no employers' organizations paralleling what is commonly meant by labor organizations. There are employers' associations meeting to talk over general problems of the trade. Their sessions on freight rates would bore you stiff, and the livest thing I heard at one of their meetings was the necrology. In these associations there is no lining up of forces to make demands from the employees.

"The superintendents and overseers of the cotton mills have their Southern Textile Association. They discuss technical problems and talk again and again of ways in which to render better service to those by whom they are employed, and to those whom they themselves employ, but there is never any organized effort among them to exact demands from the worker.

"If the employees are desirous of forming associations parallel in structure and function with those of the employers, good might be accomplished. Together, conscious of their virtues and their shortcomings they could tackle absenteeism, workers' safety, physical examinations, etc., as these problems can never be worked out for them. They might be interested in studying together what other workers in other places are accomplishing through orderly, peaceful methods. Let such associations visit the meetings of their employers, and vice versa. Industry is a great whole, and together employer and employee move on to better things, or together perish by the roadside.

"At the very moment in which I was writing this, the postman brought me this letter from a personnel director, unknown to me, in one of the large Northern, though not New England, cotton mills: 'I want to come South, in however humble a position, to learn at first hand all those ways in which the South has paid attention to those personal relationships and industrial conditions which I fear we too long neglected prior to our terrible strike of 1926.'

"Here then is challenge for you and for me, and much for the whole South to work upon: the preservation of a priceless friendliness, a mutual good will, a just and reasonable *quid pro quo* from employer to employee and from employee to employer.

"No taking of unfair advantage, no lining up of forces to fight, but all working together for the conservation of every productive energy among us. Then indeed shall we be a great South, friends, not foes, not repeating history in its errors, not confused nor crippled in conflict, not wasted in war. We shall be friends, not foes."

Joel Feder

Rust-colored wool crepe tunic dress designed by Mayer "Chic" for Botany Worsted Mills.

Wide World

Gown-negligee made by Leonora Silk Underwear Co., featuring "Three Graces" satin from Schwarzenbach, Huber Co.

Gabor Eder

Afternoon ensemble, dress and coat of Celanese Velvocel in deer shade. Model by Morris Lefkowics & Co., Inc.

Autumn Fashion Promenade Features Garment Trade Conferences

"MARKET WEEK," a series of conferences sponsored by several groups in the garment trade and held at the Hotel Astor, New York, drew to a close July 18 with a "Business Stability Meeting." Another highlight of the conference was the autumn fashion promenade of the Garment Retailers of America.

At the concluding session, speakers expressed the opinion that the end of the present depression is not yet actually in sight, but that relief will begin to be felt by October and perhaps by the end of September. The speakers were Senator Royal S. Copeland; Louis Wiley, New York *Times;* A. D. Whiteside, president, the Wool Institute; Thomas B. Hill, president, Silk Association of America; Lewis H. Haney, director, Bureau of Business Research, New York University and editor of TEXTILE WORLD *Analyst;* Frederick Greenberg, president, Affiliated Dress Manufacturers, Inc., and Samuel Greenberg, acting president, Industrial Council of Cloak, Suit and Skirt Manufacturers.

Style Trends

Garments exhibited at the style show covered the garment range from negligees to fur wraps, from strictly formal models to garments of every type for both active and spectator winter sports.

Among the noteworthy fashion trends regarded by the exhibitors as likely to hold sway for the new season were the following: Black and white, separately or together, were particularly prominent. The leading colors included copper, the wine reds, dark green, browns and bisque tans.

Metallic cloths, sheer and embroidered, were in the van for formal afternoon and evening wear. Both Lyons and transparent velvet were among the cloth dress mediums. Canton crepe, panne satin and satin were outstanding fabric favorites.

The coatings and suitings of greatest significance for fall included monotone tweeds, suede cloths, crepe broadcloths, frosted-finish types, and plain and printed velvets, the last-named in dotted and striped versions.

Textile houses sponsoring some of the exhibits were: American Mills Co. of New York, Belding Heminway Co., Sidney Blumenthal & Co., Botany Worsted Mills, Celanese Corp. of America, Chenango Textile Corp., The Corticelli Silk Co., Foremost Fabrics Corp., The Schwarzenbach, Huber Co., J. P. Stevens & Co., L. & E. Stirn.

Operation of Jack and Dividing Sinkers in Full-Fashioned Hos ie

By M. C. Miller, M. E.

Mechanical Engineer, Manville, R. I.

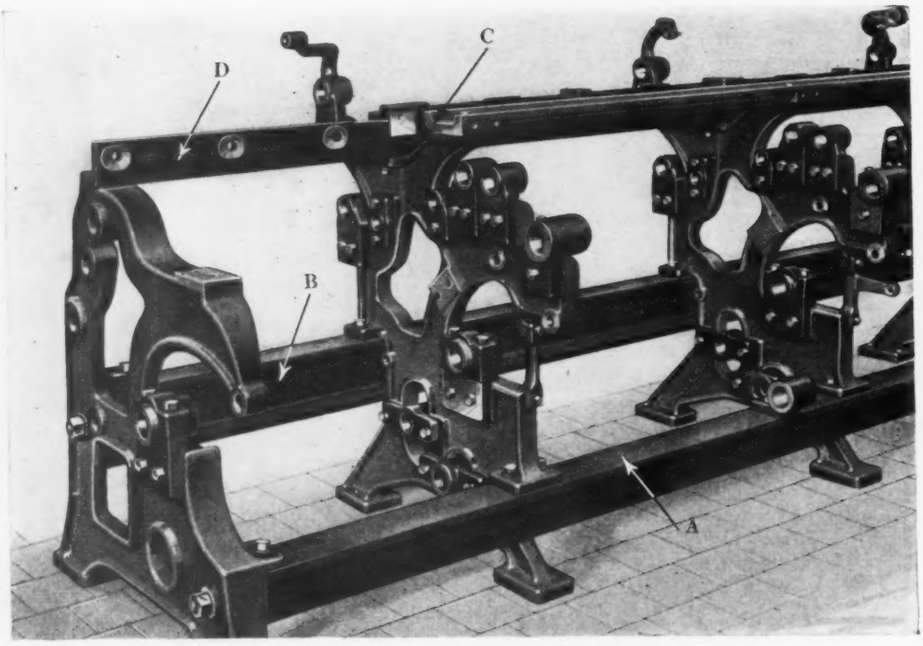


Fig. 6. Frames and rails

WE SHALL leave for the moment further detailed explanation of the needle-bar motion and describe briefly the construction of the frame of the machine, and locate therein the needle-bar mechanisms described in the last article.

All full-fashioned machines are constructed with a number of sections of needles, cooperating knitting elements, and operating parts. The more modern leggers are constructed with as many as 24 sections, the standard construction having two sections of needles between each pair of intermediate frames. Each intermediate frame is practically a duplicate of each other frame, as shown in Fig. 6, and is usually equipped with two feet—one in back and one in front—which rest on the floor or foundation. Each frame also has a foot or extension at the front to which is attached a heavy iron rail *A*, known as the front beam. This extends throughout the machine length. A similar extension or foot is provided at the back of the machine, to which is fastened another heavy iron rail *B*, known as the back beam, which also extends throughout the machine length.

The frames are further tied together and stiffened by the front bed *C*. This bed is also a heavy iron rail or table extending throughout most of the machine length, although not reaching the frames at the extreme ends of the machine. These end frames—one of which is shown in Fig. 6—are used to support the operating mechanisms; and in some machines, the drive mechanisms. There are no needle sections between the end frames and the first intermediate frames of the machine.

There is provided still another rail *D* extending throughout the machine length, known as the center bed, to which the sinkers and dividers with their operating parts are attached.

Operating Shafts

All the frames have certain of their surfaces finished to carry bearings for supporting the various drive

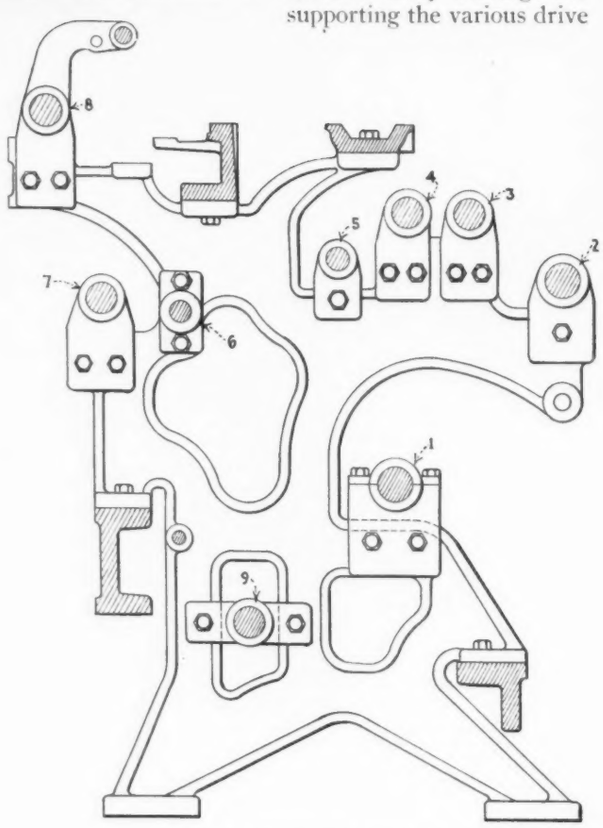


Fig. 7. Frame and bearings

iery Machines

This article is the second of Mr. Miller's series on full-fashioned hosiery machines and their operation. The first appeared May 31, page 28.

and operating shafts, as shown in Fig. 7, in which 1 is the camshaft bearing; and 2, the handwheel-shaft bearing. These two sets of bearings carry the rotating shafts in practically all machines used in the industry today. Some very recent machines have a third shaft which is used as a jack drive shaft. It is not my intention, however, to describe machines other than those known to the great majority of people interested in the art, and as yet very few jack-shaft-drive machines have been placed in operation.

There are further provided surfaces for supporting the operating shafts, 3 being the presser-shaft bearing; 4, the needle-bar-shaft bearing; 5, the bearing for the front catch-bar and jack-spring shaft; 6, the bearing for the knock-over-bit shaft; 7, the bearing for the back catch-bar shaft; 8, the back-narrowing-shaft bearing; and 9, the bearing for the narrowing-machine lifting shaft. All of the last-mentioned group of bearings carry shafts which oscillate slightly as they are operated by their various levers and cams. The frames are further equipped with other holes and fittings which will be described later.

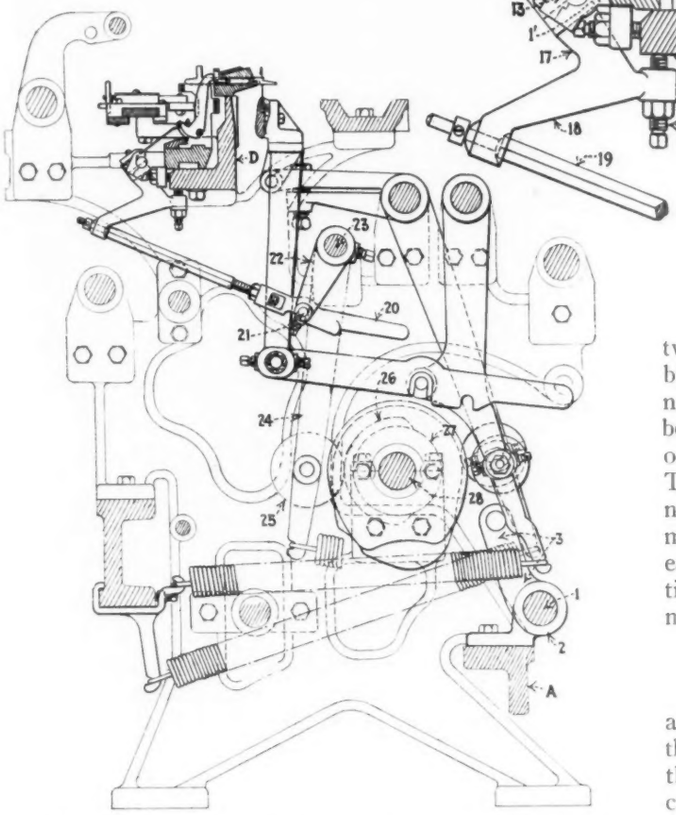
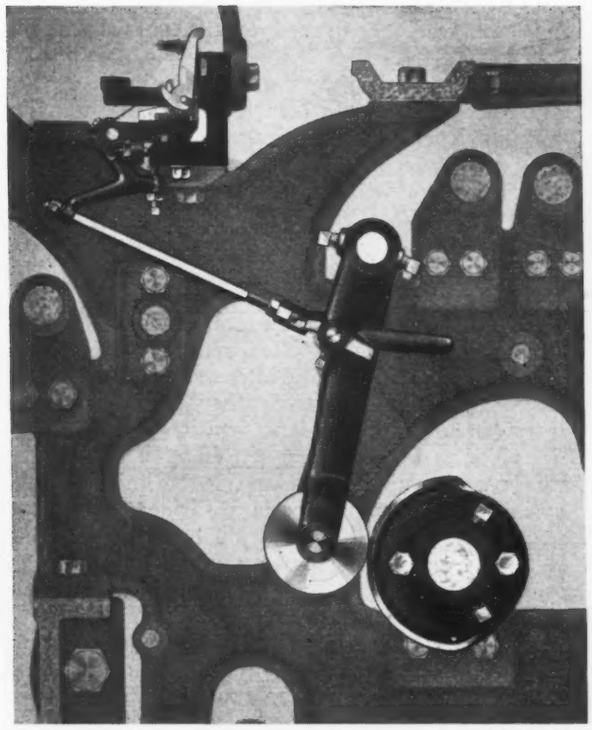


Fig. 8. Needle-bar, jack-spring, and sinker-motion units



Textile Machine Works

Fig. 9a. Jack-spring motion

Fig. 9. Sinker, divider, spring-jack, and slur-box units

Each assembly of needle-bar motion is mounted between a pair of frames, and the relation of these assemblies to the frames is as shown in Fig. 8. It will be noticed in this figure that the regulating shaft 1 has its bearing 2 supported on the front beam A. There is usually one of these bearings for almost every two sections. This regulator shaft extends in more modern machines nearly throughout the machine length, in order that there may be provided a lever-acting-presser-cam lever 3 for each needle-bar motion—that is, one for each two sections. In earlier machines a number of the needle-bar motions were not so equipped.

Sinker and Divider Assemblies

Mounted on the center bed *D* (Fig. 8) are the sinker and divider motions, the entire assembly being known as the sinker-head and jack-bed assembly. There is one of these separate assemblies for each section. The detail construction takes the form of the mechanism shown in Fig. 9. *D* is again the center bed. It supports the

and removably connected to the pin 21 of the fork lever 22.

This lever is rigidly fastened to the front catch-bar and jack-spring shaft 23, which extends throughout the machine length and to which are rigidly fastened at every few sections the levers 24. These levers are fitted at their lower end with the pin and roller 25, which contacts with the cam 26. There are as many such cams as there are levers 24, and they are carried by the bosses 27, which are rigidly fastened to the cam shaft 28, all as shown in Fig. 8.

It will be noted that the operating levers 24 are shown in light lines in Fig. 8. This has been done to show that they are not specifically intended to operate only the jack-spring mechanism, as they are really the front catch-bar operating levers, which will be shown and described as forming part of this other motion.

These operating parts, during the knitting, cause the spring beds to move the jack springs away from and toward the jacks, their function being to hold the jacks resiliently against the jack sinkers after the jacks have cammed the sinkers into position against, or very nearly against, the verge plate. At other times the springs are moved away from the jacks so as not to set up any resistance to the coming out of the sinkers and jacks. Their exact timing will be explained later, but is such that the same operating and cam means can be used as for the front catch-bar motion.

Slur-Cock Boxes

Projecting backward from the center bed *D* (Fig. 9) —one between each section—are the slur-cock-box supports 30, rigidly supporting the slur-cock guide bar 31, which extends throughout the machine length. Mounted to slide endwise on this bar are the slur-cock boxes 32. There is one box for each section, and all the boxes are tied together by the slur-cock-box connecting link 33, so that they will move back and forth in unison for a distance in excess of the width of each needle section.

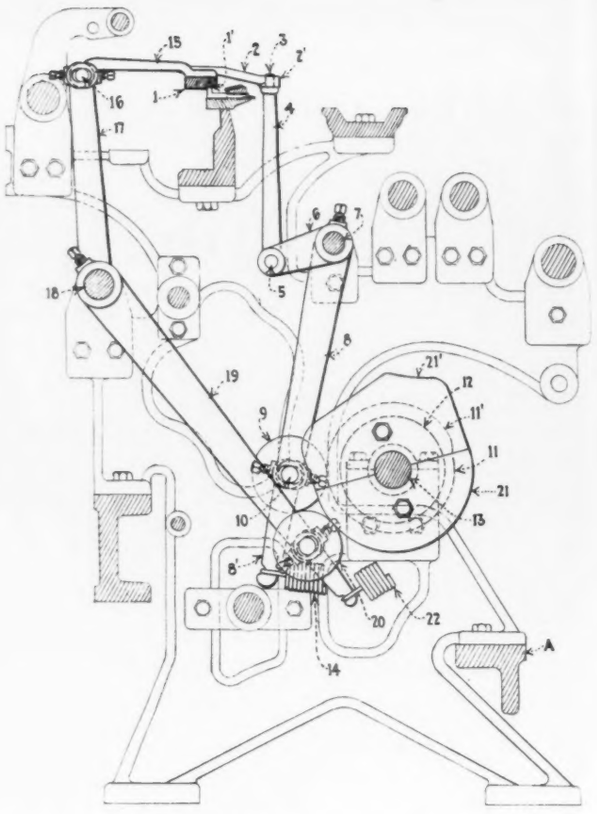


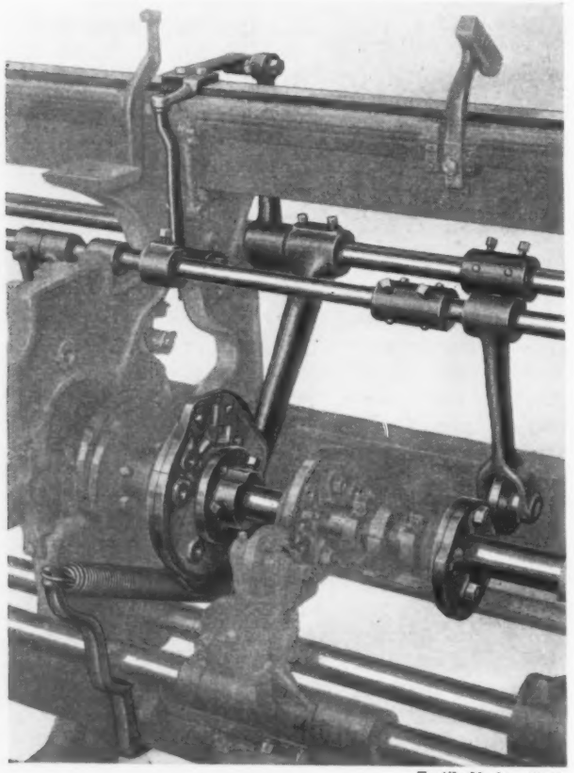
Fig. 13. Catch-bar motion

A slur-cock box is shown in detail in Fig. 11. Housing *a* is finished at *b* to fit slidably over the slur-cock guide bar 31, Fig. 9. The upper surface is machined for the cock-box slide *c*, which is held in place by the cover *d*. The slide is capable of manual adjustment in and out by means of the fixed threaded stud *e* and the knurled nut *f*. The latter is fixed endwise by the slot provided for it in the cock-box housing, so that by manually turning the knurled nut *f*, endwise adjustment is given the slide *c*, which has rigidly fastened to its front end the slur-cock *h*.

The slur-cock is a hardened-steel cam which contacts with the back surfaces of the jacks 12, Fig. 9, and causes them to move the jack sinkers successively toward the front of the machine, as shown in Fig. 12. Their adjustment should be such that the jack-sinker butts at the end of their forward movement are out of contact with the verge plate 11 (Fig. 9) by 0.008 in. or less. In no case should the slur-cocks be adjusted so that the jack-sinker butts are tight against the verge plate when the jacks are on the extreme throw of the cam, nor should they be further from the verge plate than the maximum distance noted.

Action of Slur-Cocks

Therefore the slur-cocks, as they are moved back and forth, project the jacks and through them the jack sinkers from their outermost position to nearly in contact with the verge plate at each stroke. When the jack sinkers are near the verge plate, the jack springs 15 (Fig. 9) snap over the tail 12' and spring-seatedly and successively hold all of the jacks in this position during



Textile Machine Works

Fig. 14. Front catch-bar motion

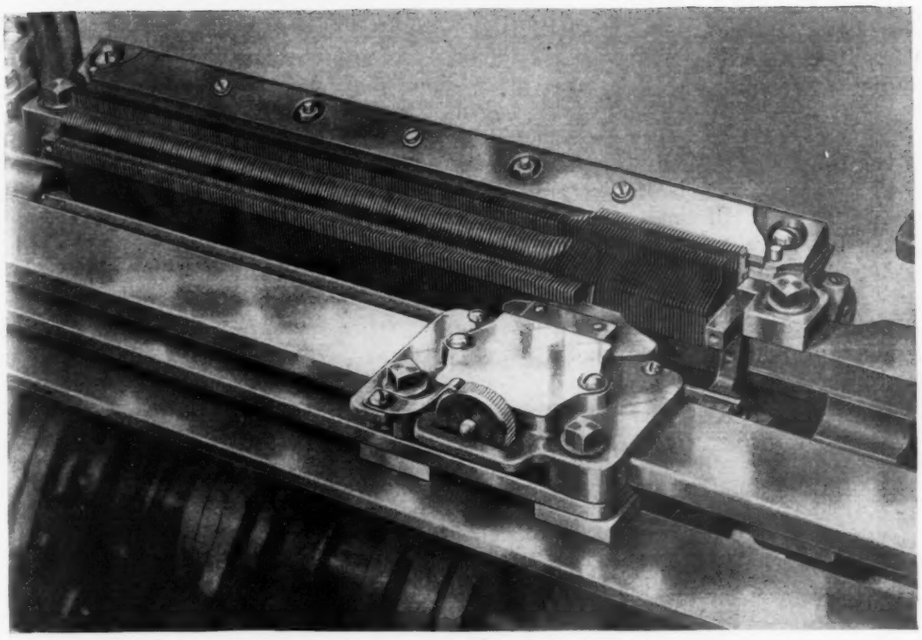


Fig. 12. Slur-cock action

jack-bed bottoms 1, of which there is one for each section. To these are fastened two cast end pieces, between which are located the comb punchings 2. These punchings and end pieces support the jack axle 3 with the jack-bed stop bar 4 supported only by the end pieces. The comb punchings are partly aligned by the two comb guide bars 5 and 6, and are further aligned and clamped by the clamp 7, which is slotted for the punchings at its front edge.

Adjustably fastened and rigidly held to the top of the center bed *D* are the sinker-head bottoms 8. There is one such piece for each section. These pieces are slotted on their upper surfaces to receive the sinkers 9, which are fitted to slide freely in the slots and are held down by the sinker-head cap 10. This cap is slotted to receive the sinkers on its under side, the two pieces 9 and 10 being held apart the proper distance by a short separator block at each end. The sinker-head bottom is so formed at its front edge 8*a* as to provide the necessary needle-pressing surface.

Sinkers, Verge Plate, and Sinker Jacks

There are, generally speaking, two types of sinkers—jack sinkers shaped as shown at *a*, Fig. 10, which operate between alternate needles; and dividing sinkers, shaped as shown at *b*, Fig. 10, which operate between the needles and are located between each pair of jack sinkers. While they both have a yarn-sinking notch *c* and a nib *d*, they differ considerably at their butt ends *e*. The butt of the jack sinker is considerably shorter than the butt of the divider sinker. These short butts are reinforced on each side by thickening pieces *f*, which are riveted to the jack sinker and to each other. The divider sinkers are further provided with the backward-projecting tail *g*, the purpose of which is to insure that the end of the jack—which is always between two dividing sinkers—will at all times remain in alignment with its jack sinker. There is one more sinker than the total number of needles—half of them being jack sinkers *a*; and the other half, dividing sinkers *b*.

Mounted on top of the sinker-head cap 10 is the verge plate 11, as shown in Fig. 9. This acts as a stop for all the sinkers and is mounted for adjustment to and from the sinker butts.

Supported to fulcrum on rod 3 are the sinker jacks 12. There is one jack for every jack sinker. The jacks are guided by the jack-comb punching 2, so that their upper ends contact with and are held in alignment with the thickened butts of the jack sinkers. They are further aligned and guided by the tails of the divider sinkers, all as shown in Fig. 9.

Operation of Jack Springs

There are further provided at the back of the machine and extending from each jack-bed bottom 1 (Figs. 9 and 9*a*) two ears 1′, which form the bearing 13 and support the spring bed 14. This bed is slotted to receive the jack springs 15. These springs are made of flexible wire, bent at one end at right angles to fit into holes provided for them in the spring bed 14. They are held therein by the clamp 16. Their other end is bent as shown at 15′, being guided between the jack-comb punchings and resting against the end 12′ of the jacks.

The spring beds with their springs (there is one such assembly for each section) have fastened to them the brackets 17 (Figs. 9 and 9*a*), which are provided with an adjustment screw 17′ for regulating the distance the jack springs move in their movement away from the jacks. These brackets are fitted at their other ends with the extension 18, which is fitted to receive the connecting rod 19. This rod is adjustably fastened at its other end to the hand lever 20 (Fig. 8), which is manually

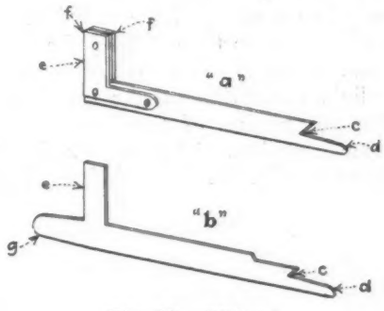


Fig. 10. Sinkers

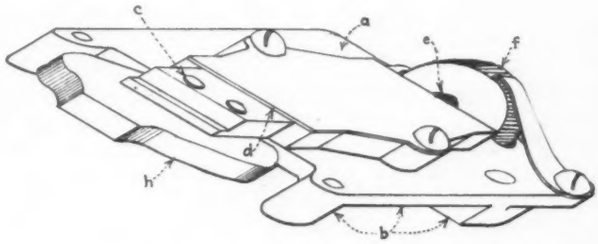


Fig. 11. Slur-cock box

the time the dividing sinkers are brought forward by what is known as the catch bar. The catch bar will now be described, with its operating levers and cams.

Catch Bar and Front Motion

The catch bar 1, Fig. 13, is a bar extending throughout the machine length, grooved to receive at times both the jack- and dividing-sinker butts. It is at all times in contact with the dividing-sinker butts and controls them. It has a movement toward the front and back of the machine, as well as a slight movement up and down, so that the catch-bar motion is really divided into two motions—the front catch-bar motion for imparting the up-and-down movement and the back catch-bar motion for imparting the in-and-out movement.

The catch bar 1, Fig. 13, is held in its high position in relation to the sinker butts by the catch-bar connecting pieces 2, which are rigidly fastened to the bar 1 at every few sections. These connecting pieces are finished at their front end 2′ with a hole, which fits freely on the upwardly projecting pin 3 of the catch-bar lifting arms 4, there being of course as many of these arms as there are connecting pieces. These arms are carried by studs, which form a part of the catch-bar lifting lever 6. There are as many of these levers as there are arms and connecting pieces.

The levers themselves are rigidly fastened to the front catch-bar and jack-spring shaft 7, which is slightly oscillated by the action of the levers 8. These levers are each equipped at their lower end with a roller 9 freely rotating on the pin 10, each roller contacting with a split cam 11 and 11′. These cams, which are known as the front catch-bar cams, are rigidly fastened to their cam boss 12, which is in turn rigidly fastened to the camshaft 13.

The portion 11 is the round or rest portion of the cam, while the portion 11′ contains the cam riser and therefore forms the working portion of the cam. The end of the levers 8 terminates in a spring-connecting end 8′, to which is hooked a spring 14. The other end of the spring is fastened to a rigid hook (not shown), which is clamped to the front beam *A*. There is usually a lever 8, a roller 9, a cam 11, and a spring 14 for every few sections of the machine.

In operation, the portions 11′ of the cams move the rollers *a* and levers 8 away from the camshaft. The resulting slight oscillation of the camshaft 7 lifts the arms 4 through motion of the levers 6, and these in turn lift the catch bar. The construction is also very clearly shown in Fig. 14. The timing will be described later.

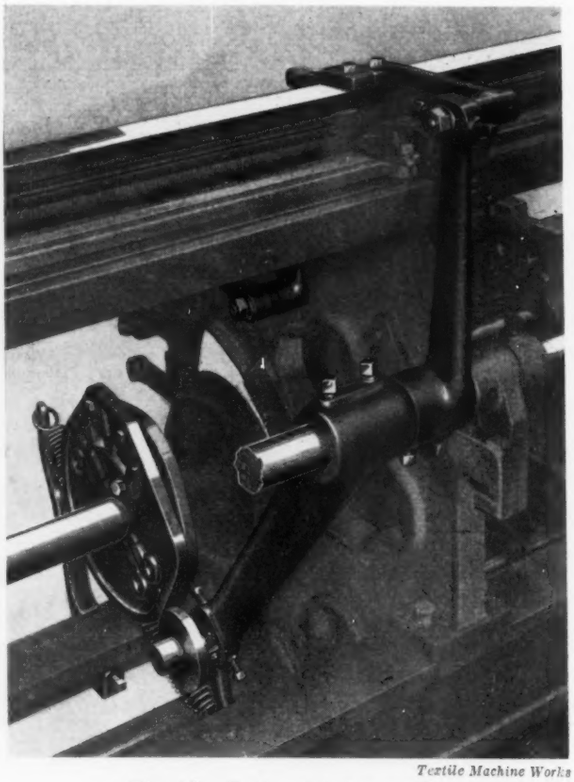
Back Catch-Bar Motion

The in-and-out or back catch-bar motion is transmitted to the catch bar through the horizontal catch-bar shifters 15, of which there is usually one for every few sections. These shifters are rigidly fastened to the top of the catch bar 1 and fit at their other end on the stud 16, which is adjustably, yet rigidly, carried in the lever 17. There are of course as many such levers as there are shifters. The levers 17 are rigidly fastened to the back catch-bar shaft 18, which extends throughout the machine length. Rigidly fastened to this shaft, at about every few sections, are the depending levers 19. These are equipped at their lower end with the stud and roller 20, which rides against the split cams 21 and 21′. These cams, which are known as the back catch-bar cams, are each rigidly fastened to a boss, similar to boss 12, which forms a rigid connection to the camshaft 13. The portion 21 is the round or rest portion of the cam, while the portion 21′ contains the cam risers and therefore forms the working portion of the cam. The roller 20 is held in contact with its cam by the spring 22, one end of which is connected to the lower end of the lever 19, and the other end to a rigid hook (not shown), which is clamped to the front beam *A*. The construction is also very clearly shown in Fig. 15.

In operation the portion 21′ of the cam moves the roller 20 away from the camshaft, and thereby, through the levers 19 and 17 and shifter 15, moves the catch bar toward the front of the machine. The declines of the cam permit the spring 22 to pull the roller toward the camshaft and in this manner move the catch bar toward the back of the machine.

Catch-Bar Movements

The front and back catch-bar motions are so adjusted that the catch bar is held raised prior to the traverse of the slur-cock, so that its front edge 1′ is above the short jack butts (as shown in Fig. 13). This permits the short-butted jack sinkers to be projected toward the front of the machine. The catch bar is kept in this raised position during the jack-sinker action and during the following forward movement of the catch bar. During this movement the catch bar moves the divider sinkers toward the front of the machine so that their butts come as close to the verge plate as previously described for the position of the jack sinkers. After the catch bar is in this forward position, it is lowered so that its front edge drops below the top of the short-butted jack sinkers. On its backward stroke, therefore, the catch bar moves both the jack and dividing sinkers toward the back of the machine. It is then raised so that its front edge is again above the top of the short-butted jack sinkers, and is thus left in the correct position for the next slur-cock action.

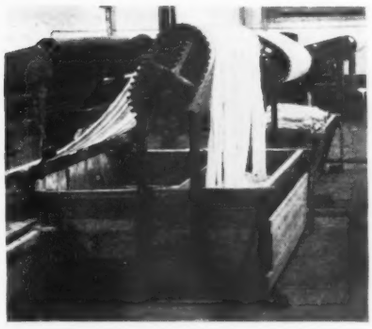


Textile Machine Works

Fig. 15. Back catch-bar motion

Precautions in Dyeing Crepe-Back Satins

By W. Gordon Young



Equipment for dyeing crepe-back satin

DYEING of crepe-back satins, of which the satin is acetate rayon and the crepe real silk, presents a number of difficulties not ordinarily encountered in the dyehouse. In fact, it is not advisable for any dyer to start work on fabrics of this type until he has had some practice in processing pure silk goods and those composed wholly of acetate rayon. While the experience gained in handling both of the latter types of fabric will prove invaluable, in dyeing crepe-back satins there will still be need for the utmost skill and judgment. Add to these facilities careful chemical control, and the expert dyer should be able to produce satisfactory results.

Crepe-back satins, since they contain real silk, must be boiled off or degummed previous to dyeing. This process, which is usually carried out in large boil-off vats similar to those used for all-silk fabrics, presents the first problem. While there are a number of boil-off compounds on the market which are excellent for degumming pure silk, it will be found that many of these cannot be used in an acetate-rayon mixture. If too alkaline a solution is used, the acetate rayon will be saponified, thus losing its luster and acquiring an affinity for direct dyes. High temperatures also must be avoided, or the rayon will be damaged. On the other hand, the bath must be capable of properly degumming the silk.

Boiling Off

It will be necessary for each mill to determine what boil-off compound is the most satisfactory under local conditions of use. As a rule, however, olive-oil soap will be found to give excellent results. A solution containing 20 to 25 lb. of soap to 100 gal. and maintained at a temperature not exceeding 180° F. imparts no ill effects to the acetate rayon and enables complete degumming of the silk. The time required for the boil-off varies, and due to the low temperature of the bath, may be four, five, or even six hours.

The fabrics are usually treated in rope form, about 40 pieces being boiled off at one time. Two men, one stationed on each side of the vat, keep the goods in motion while immersed in the liquor. Care must be taken in handling the fabric while in the bath, as the acetate rayon is in a more or less plastic condition and may be damaged by rough treatment.

After the boil-off the fabric is partially dried in a centrifugal extractor. The goods should not be dried too thoroughly in the extractor; otherwise, creases may be formed which will be evident after dyeing and finishing. To reduce the possibility of creases some dyers prefer to run the fabric over a tenter after extracting and before dyeing. This procedure, however, is not usually necessary unless the extracting has been carried too far.

Dyestuffs and Dyeing

Crepe-back satins are dyed in reel machines, such as are ordinarily employed for crepes and similar materials. They are usually dyed in solid shades by the one-bath method, although cross-dye effects may be produced if desired. Special colors developed for use with acetate are employed for that fiber, while direct colors are used for the silk.

Since the satin is often bruised if the fabric is dyed on the winch in the customary way, it has been found best to have it prepared in a manner that will keep the face from touching the reel of the machine. To obtain this protection, the fabric is sewn all along the selvage with the satin face inwards, thus preventing the satin from touching the reel. The goods are then loaded on the machines and dyed in the ordinary manner. Providing the bath contains sufficient soap, there is little trouble with uneven dyeing.

In the choice of the direct dyestuffs for the dyeing of the real silk in this type of fabric, particular care must be taken to assure that they are almost perfect resists for the acetate rayon. It is often extremely difficult to get the desired shade on the face if the direct dyes are staining it. Therefore all dyes should be tested in the laboratory to make certain that they are suitable. During the processing of real-silk and acetate-rayon mixtures there are several things that the dyer must remember. Acetate dyestuffs, as he should already know, must be given their full time to dye properly—they cannot be rushed and get a true color or a shade that is fast to washing. It also is advisable to hold back considerably with the direct dyes; when the acetate silk is practically on shade, they can be rushed on by the addition of more dye or salt. Dye with a reasonable amount of time; that is the only reliable way to bring up to shade on acetate rayon and insure a proper result. Actual dyeing operations may consume from three to four hours, while the preliminary wetting out will require about twenty minutes and the final rinse another hour.

If a soft handle is wanted, and an emulsion or oil finish is given, this finish must be chosen with the utmost care; and only after having made extensive laboratory tests should it be used. There are finishes that alter the shade of the fabric, others that strip off dye and make the fabric streaky, and yet others whose deleterious effects do not show up for some time.

Forecasting Men's Wear Fashions

THE latest style analysis of men's wear orders by the Wool Institute is contained in a booklet compiled by Bart Murray, entitled "Looking Forward at Fashions in Cloth and Clothing for Men." A series of charts depict the changes in suiting patterns and colors since the fall 1929 season.

The following is a summary:

Meeting the general demand for men's clothing, like a golf swing, is largely a matter of timing. Offering the right thing too soon is just as bad as having the wrong thing at any time. Constant circulation of conflicting opinions as to the authenticity of different styles kills the best efforts of capable stylers and buyers of cloth and clothing, and brings, in addition, continuous trouble and losses to each individual concern in both industries.

Frequently certain colors are widely promoted as being "the latest fashion" long before they have been woven into cloth. Similar groundless claims, together with inspired style propaganda mixed with honest but inaccurate predictions, biased ballyhoo, tom-tom beating of fly-by-night houses, and occasional mis-statements of fact tend to create in the men's wear industries what amounts to a false or synthetic demand.

Fashion in men's clothing, considered from a practical standpoint, is what men actually are wearing; not necessarily what is being offered for sale. It takes more than one swallow to make a summer, as the saying goes, and it also takes more than one suit, seen here and there, to make a fashion. Many men must be wearing a specific color or pattern to give it fashion importance. It must follow then that the greater the number of men wearing any particular color or pattern the more truly that color or pattern can be said to be in fashion.

The colors and patterns that are in fashion in men's clothing can be determined definitely at any time by actual count. Each month, the Wool Institute makes an analysis of the orders for cloth received by woolen and worsted mills, and distributes to mill executives, sales agents, and clothiers, figures that show the relative demand for various colors and patterns.

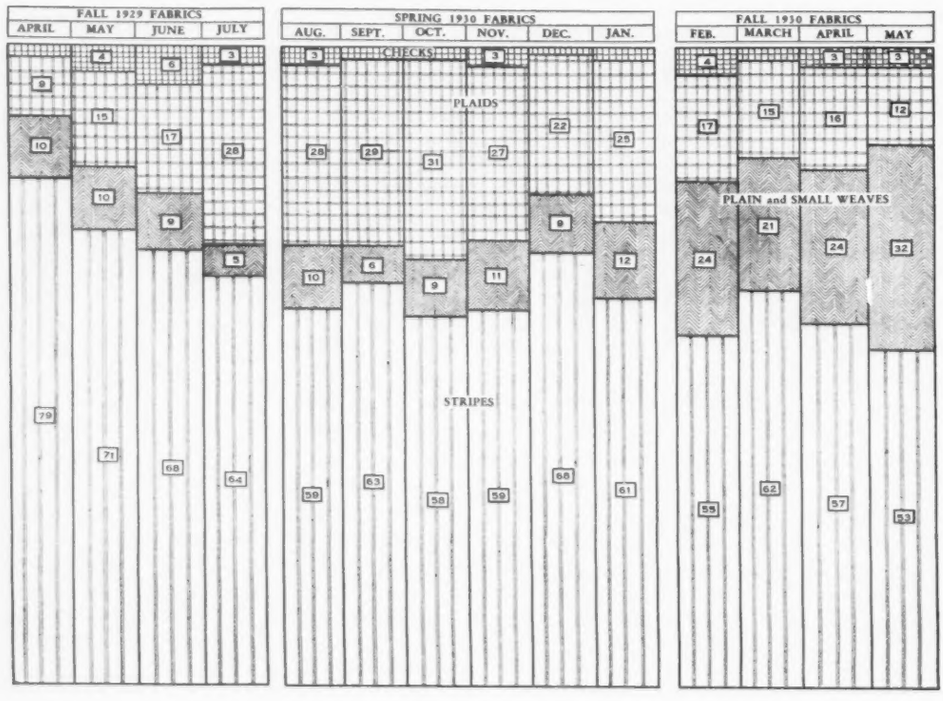
Consumer demand, on one hand, and present day methods of manufacturing and distributing cloth and clothing on the other, combine to make fashion changes in men's clothing a gradual evolution; and the transition from one fashion to another is unmistakably apparent in a record of orders for cloth. Information that shows the rate at which fashions for men develop, the degree of popularity they attain, and the length of time they are commercially important is available gratis to all mills, sales agents, and clothiers through the Wool Institute statistical records.

Manufacturers or distributors aiming to satisfy the apparel requirements of the greatest number of men can extend the lines on the Wool Institute charts into coming months as estimates of the probable future demand, confident that colors and pattern themes shown by facts to be in countrywide usage cannot go out of vogue abruptly, or be displaced in popular favor over night by the sudden growth of a new style development.

There is also another side to merchandising cloth and clothing in which statistical records of the trend of the general demand can be used as a guide. Smart buyers and sellers of cloth or clothing that is intended to be exclusive in appearance, or above the average from the standpoint of style can see in the sales records reproduced in this pamphlet the types of styling to promote or avoid in Spring 1931, and note in the analyses to be issued each month hereafter the proper time from their point of view to drop style ideas that are shown to be gaining widespread popularity.

It seems reasonable to assume that all of the retail clothiers in America will not discard or shelve the suits that they have in stock, and immediately seek other colors and patterns. As heretofore, they will try to sell what they have, and the demand for new colors and patterns will come to clothing manufacturers and mills gradually, as retail stocks are reduced.

Percentages of Orders for Men's Wear Fancy Worsted Suitings by Patterns



FIBER CONTROL Essential in Worsted Mill

By George Rice

DEMAND for brilliancy and luster in suitings, draperies, and trimmings has compelled manufacturers to give careful attention to fiber control in textiles. Varying fiber movement resulting from lack of fiber control has caused dullness and cloudiness in goods designed to be lustrous and even.

The superior luster of a thread spun on the worsted system over one spun on the woolen system is well known, and the reason for it may be readily discerned from a study of Fig. 1. However, a local variation can be developed in the finishing of worsteds which will so disturb the surface of the cloth that certain parts will absorb light and other parts reflect light. This often causes cloudy goods.

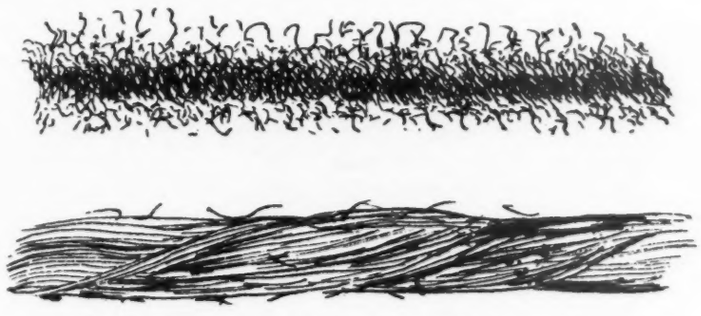


Fig. 1. Upper thread is spun on woolen system, lower thread on the worsted principle. The latter possesses good reflective properties because fibers are more nearly straight and parallel

Fig. 2. Varying fiber movement will cause varying reflective properties in any fabric

Fig. 3. Yarn was supposed to come off the spinning frames in a firm and smooth condition

Fig. 4. But when the fine fibers in the mixture shrunk, the coarse ones slackened and wrapped themselves about the thread

Cloudiness in Dress Goods

In one instance which I recall, the specifications called for a decidedly prominent nap on worsted fabric. Luster was desired in this nap regardless of other qualifications usually expected in worsteds for women's fancy dress goods. A good nap was secured, using old teasels at the start until the fiber was well drawn, and then finishing with new teasels. Cropping made the nap even and left it at normal height for napped goods. The goods, however, were cloudy. Fig. 2 shows in enlarged form a section of the fabric. Cloudiness was caused by varying fiber movement, which in turn produced different reflecting properties. The pile variation is purposely exaggerated in the drawing. The basic cause was inequality of pressure, due to a mechanical defect present in the press, but not noticed until after the goods were finished.

Regardless of the efficiency of modern machinery and methods for blending various kinds of textile material, because of the tendency for fibers of the same class to group, difficulty often is encountered in making a thorough mixture of raw materials of varying length, twist, diameter, and general physical qualities. When mixing wool and silk for dress goods, this fact often is proved.

We made some dress goods with a mixture of silk and wool, the silk being added to obtain a smarter and more stylish thread and thus add to the beauty of the fabric. The yarn was supposed to spin firmly and evenly, as shown in Fig. 3. When it came off the spinning frames, its exterior was liberally coated with coarse fibers of both raw materials which had wrapped themselves about the body structure. This is shown in Fig. 4. It was a matter of fiber control similar to that mentioned in the previous example. When the fine wool fibers were subjected to the shrinking process in the finishing, they caused the coarse wool and silk fibers to slacken and entwine themselves about the body of the thread.

OVERSEERS' ROUND-TABLE

THIS department offers a new subject for discussion each week and gives readers' comments on problems introduced during previous weeks. The subject which was opened four weeks ago is closed this week and a summary of contributed ideas is given on opposite page

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The Question of Smoking in a Mill

Editor, Overseers' Round-Table:

I CANNOT understand how anyone acquainted with textile mills and workers could be in favor of allowing smoking during working hours, for they should know what it would lead to.

When the mill is running two or three hours overtime, and there is no rest period, I feel that, after the regular quitting time, any worker who desires to should be allowed to step outside for ten or fifteen minutes for a smoke or to refresh himself. He will return to his work with renewed life and will carry on till quitting time without going stale.

W. G. TUER.

Problem of Who Should Hire the Help

Editor, Overseers' Round-Table:

THE SUBJECT of hiring help should bring quite a bit of discussion—that is if every man should express his real opinion, for I believe everyone would rather hire his own help.

In my opinion an employment office in a cotton mill is no less than a nuisance and a waste of good money. An overseer, if he has the privilege of doing his own hiring, can tell the applicant all about the job, what is expected of him, and can judge whether the applicant is capable of handling the job. Employment agents are not always able to do this. I have known of men being hired by an employment agent and sent to work, and they couldn't run the job. What could the overseer do but let him go and hire another? Such incidents cause friction between the overseer and the employment agent.

"A SOUTHERNER."

Editor, Overseers' Round-Table:

THE QUESTION of who should hire the help is indeed interesting, as I have had considerable experience in employment offices, during my fifteen years as overseer, and have never found any inexperienced, employment-efficiency pencil pushers who knew what position a man or girl was fitted for. This is the class you will usually find at the head of an employment office.

I was, at one time, connected with a plant where the employment manager was a man 48 years old with considerable experience. When the overseer asked for a certain kind of help this manager would get them and send them in to the overseer for interview. The overseer either hired them or marked on their slip that they were not suited for the job. This plan worked out quite well, for the overseer was saved time, but did not have a lot of square pegs in round holes,

Bad Work in Relation to

"YOU overseers," Superintendent Chase started off, "represent a pretty good cross section of varying experience, and I am interested to secure your reaction to a sore point which occasionally crops up. Without mincing words, I refer to the system of fining an employe for bad work. Some mills call this a deduction for damages sustained, other mills pay one piece rate for good work and another for poor work, but it amounts to the same thing. Now you boys have the floor, and, so you won't be bashful, I'll admit that I expect a hot argument."

"You know, of course, boss," Bill spoke first, "that I'm not trying to tell you how to run the mill, but to my mind you can't maintain quality without fines. You might just as well try to limit automobile speeds to 25 miles an hour without imposing any penalty for speeding. There is no question but that the mill loses far more money through bad work than the fine would cover, but a deduction for poor work is a good tonic. There is nothing that will wake up a careless operative faster than to be hit in the pocketbook, and it is my opinion that small fines, fairly set, are the best way of keeping the work up to snuff."

"Just a minute." Pete could hardly wait to have his say. "First you have to prove to me that fining is legal in many places. Next you have to prove that the overseer would be absolutely fair in setting the fine, for there is always the temptation to go easy on friends. Further, it is my belief that in nine cases out of ten faulty work isn't entirely the fault of the individual worker, but under the fine system he has to stand the gaff. The system is arbitrary, unfair, and the lazy man's way of handling the situation. Above all I think that the reverse of a fine is the proper way to insure good quality production. I refer to the system of rewarding good work by a bonus. No matter what

to Operatives' Pay

Bill says, it is the fairer way, if any such plan is to be used; and it's the better way, for the fairer you are with your help the better quality work they give you."

"Now, now," Bill broke in, thoroughly aroused but with good humor, "be reasonable. You know a fine is more effective than a reward. If they gave you ten dollars at the end of the year for not exceeding the speed limit in an automobile you'd just tear along all the time, but when you know that you have to shell out ten dollars if you are caught, then you are a little careful."

"Yes, but would you want your workers to think of you the way you think of a motorcycle cop?" Pete rejoined.

"This argument is hot," Chase laughed, "so let's have some more."

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Do *you* think that a bonus, a fine, or some other plan is the best method to insure against bad work?

Overseers and others are invited to discuss this and other questions brought up in the super's talks. Letters accepted and published will be paid for without regard to length. Brevity is desirable.

and did his own choosing. Any overseer who is not capable of hiring his own help is not qualified for the job.

B. S. PIPER.

Editor, Overseers' Round-Table:

BILL'S OPINION of the proper method of hiring help would certainly tend towards more efficient operation of each department. The overseer knows the job he has vacant, he is

Summary of Discussion on Choosing an Assistant

THE QUESTION of the proper method to choose an assistant did not provoke any controversial discussion, as it was generally agreed that mere ability as an operative should not be used as a guide. One point of value which received considerable attention was the need for great care in choosing an understudy, lest an obviously improper choice lead to ill feeling among the operatives, with a consequent loss of productive efficiency. The overseer, it was said, to keep the feeling of fair dealing alive in his department was almost forced to choose the assistant whom everyone, including the workers, knew, in the back of their heads, was best suited for the position.

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responsible for the quality and output of his department, and he should be allowed to select the worker he thinks qualified.

An outside employment man who is not familiar with the conditions can hardly be expected to select the best man, when he doesn't even know the details of the job for which the worker is being selected.

This is my first entrance into the discussions, but the employment problem is one of interest to me, and it will be interesting and profitable to see what others think.

W. F. R.

Editor, Overseers' Round-Table:

MUCH CAN be said on both sides, but speaking as an overseer, I think too much time is taken up in interviewing new help. Of course a good deal depends upon the size of the mill, but even then an overseer can make his wants known to the office where there should be some one capable of culling out the wheat from the chaff.

Personally I would want to meet any help who were coming to my department before they were finally engaged, not that it would be a lack of confidence in the employment department, but there is always the chance of an undesirable worker getting by that you may know something about that the employment department would not, and it is far easier to keep an undesirable out than to put him out.

I enjoy your Overseers' Round-Table very much. Keep it up.

S. J. N.
Boss Weaver.

Choosing an Assistant

Editor, Overseers' Round-Table:

THE SELECTION of an assistant should be based upon his experience and knowledge of the mechanical and departmental operations, his ability to handle help, and his moral standing. It isn't a question of age, or of years of experience, as either, or both, do not always merit promotion.

Encouragement of a worker is a laudable sentiment, but le us be sure our encouragement is rightly placed. The decision of an overseer is not an easy one, for misplaced judgment is liable to reflect adversely on the cooperation and production of the department, and thus defeat the purpose for which the decision was made.

An assistant is, in effect, an understudy to the overseer and must have the general qualifications to fill his place when the necessity arises. The decision must rest not on ability or general intelligence alone, but on a mixture of both.

ROBERT A. C. SCOTT.

NEWS about MEN

E. W. MONTGOMERY of the F. W. Montgomery Cotton Co. of Greenville, S. C., recently addressed the students taking the special cotton grading course at the Clemson College Textile Dept. Mr. Montgomery, from his wide experience in cotton, was able to give this group of cotton students very valuable information in connection with the factors in grading, classing and stapling cotton.

WILLIAM A. BROADHEAD has been re-elected president of the Jamestown (N. Y.) Worsted Mills, Inc. Other officers re-elected include WILLIAM R. REYNOLDS, SR., vice-president; E. G. PIERCE, secretary; WILLIAM R. REYNOLDS, JR., treasurer and general manager. In addition to the officers the directors are HENRY K. SMITH, BREWER D. PHILLIPS and CARROLL M. HALL.

DONALD COMER, president and treasurer of the Avondale Mills, operating plants in Birmingham, Ala., and a number of others in Alabama towns, announces that the new Comer bridge, across the Tennessee River, near Scottsboro, Ala., will be dedicated Aug. 2. It is named for his father, the late Gov. B. B. COMER.

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THOMAS COOPER, of Casper, Wyo., has been re-elected president of the Wyoming Wool Growers' Assn.

T. J. YUND, president of Yund, Kennedy & Yund, Amsterdam, N. Y., has sailed for an extended sojourn in Europe.

JAMES H. SANDERS, former official of the Southbridge (Mass.) Printing Co., is critically ill at the home of his daughter in Boston.

O. F. CONABLE, president of the Fultonville (N. Y.) Textile Co., has returned from a vacation passed at Stoner Lake in the Adirondacks.

C. L. MITCHELL, formerly head of the Waterford (N. Y.) Knitting Co., was named a member of the various committees selected to carry on the activities of the Cohoes Rotary Club at the organization meeting.

ALFRED and HUGO HEMMERICH, executives of the Berkshire Knitting Mills, Wyomissing, Pa., have returned from a vacation motor tour of Canada.

EDWIN N. BARTLETT, president and treasurer of the Edwin Bartlett Co., North Oxford, Mass., has gone to Hollywood, Cal., to visit his son, Edwin A. Bartlett, and also to join his wife.

W. P. CARGILE of the Lowe Mfg. Co., has been re-elected president of the West Huntsville Foremen's Club, one of the largest organizations of its kind in the South. The club is composed of practically all of the key men in the textile industries of West Huntsville. Other officers elected are R. V. MCCLURE of the Helen Mills, vice-president; M. D. KENNAMER of the Lowe Mills, secretary-treasurer, and W. B. PATERSON of the West Huntsville Y.M.C.A., corresponding secretary.

ROBERT S. MEBANE, formerly president of the Republic Cotton Mills, Great Falls, S. C., has been appointed a member of the Northwestern North Carolina Recreational and Development Council.

ROBERT C. BOGER, JR., of Boger & Crawford, Philadelphia, Pa., and Lincolnton, N. C., who was seriously injured in an automobile accident three weeks ago is in a hospital at Salisbury, N. C., recuperating and it is expected that he will be sufficiently recovered within next two weeks to leave for his home in Philadelphia. Mr. Boger is the son of Robert C. Boger, president of the company.

DR. JOHN E. LIVINGOOD, of the Textile Machine Works, Wyomissing, Pa., and family are spending the summer at Moosehead Lake, Me.

Z. L. POTTER, head of the Z. L. Potter Advertising Agency of Syracuse, N. Y., which business he started about six years ago, has sold his interests to his partners and will assume the position as director of distribution for the Mohawk Carpet Mills, of Amsterdam, N. Y. Mr. Potter will remove to Amsterdam shortly.

ALFRED R. MACORMAC, Professor of Textile Chemistry at the Clemson College Textile School is attending the summer session of Columbia University in New York City. He is taking graduate work in physical chemistry under PROF. J. R. MORGAN and in organic chemistry under PROF. J. M. NELSON.

E. F. QUITTNER, Sheble & Wood, Inc., Philadelphia, won the invitation tournament of the Coates-Jordan Post of the American Legion, at the Old York Road Country Club, Philadelphia, July 15, turning in a card of 76.

DR. W. C. HAMRICK, prominent textile executive of Gaffney, S. C., announces his candidacy for re-election for the upper house of representatives from Cherokee County.

A. E. MCKENNA, professor of weaving and designing of the Clemson College Textile School, recently left Clemson for the University of Tennessee where he is working toward his master's degree.

WALLACE I. STIMPSON, vice-president of the Draper Corp., Hopedale, Mass., and Mrs. Stimpson, are passing a vacation at Lake Winnepesaukee, N. H.

T. S. DUTCHER, vice-president of the Chalmers Knitting Co., Amsterdam, N. Y., has returned from a sojourn at Lake Pleasant.

H. E. MACHOLD, vice-president of the Skenandoa Rayon Corp., Utica, N. Y., has returned after spending several weeks vacation at his summer home near the Thousand Islands.

C. O. BRIDGER, secretary and treasurer of the Bladenboro (N. C.) Cotton Mills, has been chosen vice-president, which position he will fill in addition to his other duties.

J. ARTHUR ATWOOD, treasurer of the Wauregan (Conn.) Co., has been re-elected president of the Brooklyn Savings Bank, Danielson, Conn.

T. K. TSUTSUMI, well known in Texas cotton circles, having been manager at Dallas, Tex., from 1919 to 1924, of the cotton firm of Morimura, Arai & Co., was recently made general manager of the Kanegafuchi Cotton Spinning Mills, in Tsing Tao, Japan, according to advices received in Dallas a few days ago from Tsing Tao.

G. C. ABERLE, general manager, H. C. Aberle Co.; JOHN BROMLEY, Quaker Hosiery Co., and COL. MILLARD D. BROWN, Continental Mills, Inc., Philadelphia, Pa., spoke last week at a meeting of the Philadelphia Chamber of Commerce, which is holding a series of meetings to ascertain the obstacles in the manufacturing field in the district.

L. HINES, manager of the Du Pont Rayon Co.'s plant, Old Hickory, Tenn., has been promoted to assistant general manager of Du Pont Cellophane Co., in New York. ARLINGTON KUNSMAN, assistant plant manager, succeeds Mr. Hines.

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JOE A. FARMER, for many years associated with the Gossett group of mills in South Carolina with headquarters at Anderson, has been transferred to the Charlotte offices of the Gossett mills of both Carolinas. He will be in charge of sales in the southeastern territory, it is stated. The transfer is effective Sept. 1. Mr. Farmer has been with the Gossett chain for 18 years, for the last six years assistant treasurer of the Taxaway, Riverside and Gossett mills in Anderson County.

E. R. FOSS, sales representative, Powers Regulator Co., with headquarters in Charlotte, N. C., is under treatment in St. Peter's Hospital there following a recent operation.

PETER T. QUINN and L. C. LOCKMAN of the southern sales force of the Atlanta, Ga., office of the Draper Corp., are on a visit to the main plant at Hopedale, Mass.

EARL COOPER of the Hamilton Woolen Co., Inc., Southbridge, Mass., and MARGORIE WEHINGER, Charlton City, Mass., daughter of JOHN J. WEHINGER of the sales force of the James Hunter Machine Co., North Adams, Mass., were married on July 19.

Twelve graduates of Textile School of North Carolina State College, in June,

Teachers of industrial subjects in South Carolina High Schools who attended a conference at the Textile Department of Clemson College, recently. Reading from left to right they are: 1st row: H. H. Willis, Director Textile Dept. Clemson College, S. C.; J. L. Marshall; Theo Eye; W. J. Cronan; Dr. E. W. Sikes, President Clemson College; C. M. Wilson, State Supervisor Trade and Industrial Education; W. H. Washington, Registrar, Clemson College; 2nd row: R. N. Allen; H. S. Tate; C. W. Lombard; W. C. Till; F. J. Stubbart; W. A. Behlmer; J. W. Gantt; M. L. Rhodes, Supervisor of Textile Evening Classes, Lincolnton, N. C.; W. B. Williams; G. S. Brooks; 3rd row: C. J. King, S. C. Fulmer, J. H. Clark, W. D. Blanton, J. M. Taylor; 4th row: P. D. Bishop, M. L. McClimon, H. B. Flowers, J. L. Adams, Myrtle Storey, Mrs. E. J. Clifton, Carrie Darby, Mrs. Rosamond Barton, R. J. Thackston, J. J. Lyons; 5th row: L. R. Booker, O. F. Funderburk, S. E. Whitten, T. H. Carter, D. P. Thomson, Jr.; C. W. Coons; J. H. Askins, J. D. Welborn; W. E. Burnett; W. D. Vincent, J. L. Brock

according to Dean Thomas Nelson, have been placed as follows: R. C. WINDSOR, Reidsville, with Rollinson Mills, Rocky Mount; W. P. CHESTNUT, with the Englewood (Tenn.) Mfg. Co.; J. M. CAUGHMAN, Mullins, S. C., with Pomona Mills, Greensboro, N. C.; D. M. LILES, Wilson, with Rollinson Mills, Rocky Mount; L. P. LONDON, Baltimore, with Roessler & Hasslacher Chemical Co., Perth Amboy, N. J.; D. S. RION, Tryon, with National Oil Co., Harrison, N. J.; R. E. SMITH, JR., Fairfax, Ala., with Fairfax Mills, West Point, Ga.; A. T. QUANTZ, JR., Rock Hill, with Dunean Mills, Greenville, S. C.; C. D. GORNEY, Shelby, with Cleveland Mill & Power Co., Shelby, N. C.; W. F. ISOM, Charlotte, with Celanese Corp. of America, Charlotte, N. C.; W. R. SHORE, Rocky Mount, with the Rollinson Mills, Rocky Mount, N. C.

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F. W. CALVERT has taken the position as designer for the Paton Mfg. Co., Sherbrooke, Can. Mr. Calvert held the position as superintendent of this plant several years ago.

ALVIN B. STOREY, a graduate of Lowell Textile Institute, has been promoted from textile engineer to first assistant superintendent of Textile Division of Celanese Corp. of America, Amcelle, Md.

I. T. CHAPPELL is now superintendent of Roberta Mills, Alexander City, Ala., succeeding R. S. PORCH, resigned.

J. L. CHANNEL is now superintendent of the Enterprise (Ala.) Cotton Mills.

W. L. CAMPBELL, JR., assistant superintendent of the Rowan Mills, Salisbury, N. C., has resumed his work after being detained from it for some time on account of illness.

WILLIAM MILLER, who is superintendent of the Mansfield Mills, Inc., Lumberton, N. C., has also been acting in the capacity of general manager since SAMUEL TURNER, JR. resigned several weeks ago to accept a similar position with the Alfred Mills, Inc., at Charlotte, and he will continue to do so until a manager is appointed.

W. P. TINKER, superintendent of Mill No. 1 of Davenport Hosiery Mills, Inc., Chattanooga, Tenn., has resigned his position and will go to Texas to regain his health. His plans for the future are indefinite.

FREDERICK A. MANCHESTER is now general purchasing agent for the American Enka Corp., Enka, N. C.

H. L. SHINN, of Salisbury, N. C., has arrived in Charlotte, N. C., where he has accepted a position with the National Aniline & Chemical Co.

ALLEN JONES, formerly buyer for the Martel Mills, Inc., is now superintendent of the Clyde Mills, Inc., Newton, N. C.

E. T. WILSON, personnel director of the American Bemberg Corp., and the American Glanzstoff Corp., Elizabethton, Tenn., has resigned.

W. L. BELCHER, who has been connected with the Pepperell Mfg. Co., Opelika, Ala., has resigned.

FLOYD W. BRADLEY has been promoted to day overseer of weaving at the Marion (N. C.) Mfg. Co.

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CARL HANES is now section boss of the spinning department of the Erlanger (N. C.) Cotton Mill.

ALFRED O. PREUSS, former dresser at the Rochdale (Mass.) Mills of the American Woolen Co., has accepted a position with the Holden-Leonard Co., Bennington, Vt.

C. P. WILLIAMS, head of the twisting department of the American Enka Corp., Enka, N. C., has resigned.

MATTHEW MCKENZIE has taken over the duties of overseer temporarily in the dyeing department of the Thorndike Co., West Warren, Mass., succeeding the late ANDREW J. MUNGALL.

W. J. STYLES has been appointed second hand in weaving at the Marion (N. C.) Mfg. Co.

NEWS about MILLS

Cotton

Strickland Cotton Mills, Valdosta, Ga., are installing a considerable amount of new machinery, which will very materially increase the capacity of the plant, without the necessity of adding to the operating force.

***Louisville (Ky.) Textiles, Inc.,** which was formed recently by a merger of **Louisville Cotton Mills Co.,** and **Louisville Textile Co.,** expect to have in operation within 30 days approximately 125 looms ranging in width from 40 in. to 90 in. all dobby, with 20 to 25 harness. This concern recently placed an order with Draper Corp., for a quantity of new looms which is included in the above total.

Lonsdale Co., Blackstone, Mass., has resumed operations after a shutdown of two weeks.

Pacific Mills (Cocheco Dept.) Dover, N. H., have curtailed day schedules to four days a week and night schedules to three and four nights on alternate weeks. The company has operated full time with day and night shifts for more than three years. A sluggish cotton market is given as the reason for curtailment.

William Penn Tapestry Mills, Hammonton, N. J. It is reported that this concern will install additional looms for the manufacture of tapestries.

Clark Thread Co., East Newark, N. J., has distributed its 18th semi-annual bonus to employes. About 1,000 workers shared in the awards, which aggregated $50,000. Thirteen employes who have served continuously 50 years or more were given $130 each.

Henrietta Mills, Caroleen, N. C., are now operating on a full-time day and night schedule, owing to the demand for the products manufactured. This plant had planned to maintain a 30-hour per week schedule.

Erlanger (N. C.) Cotton Mill, is now operating two weeks and closing down for one week.

Ranlo (N. C.) Mfg. Co., purchased the plant and properties of the Harden Mfg. Co., located at Worth, several miles from Gastonia, N. C., July 19, at a receivers' sale for $60,000, subject to confirmation of the court about the middle of August. Receivers for the bankrupt mill were W. T. Love and S. A. Robinson.

Manville Jenckes Co. (Loray Division) Gastonia, N. C., after a two-weeks' shutdown, has resumed full-time operations on a three-day-a-week schedule, according to J. A. Baugh, general manager. During the shutdown the plant was not completely idle, small sections being continuously operated on orders. Recently night work was abolished at the plant, and in the judgment of Manager Baugh, it will not be resumed in the future. The Loray mill manufactures tire fabrics and has 1,100 employes on each of its shifts.

Glendale Plush Mills, Inc., Philadelphia, Pa., manufacturers of Jacquard velours and frieze, located at Jasper & Orleans Sts., have leased space in the Florence Thread Co. buildings at Riverside, N. J., and are moving machinery and equipment from the Philadelphia location to Riverside. The company has approximately 12 looms in the present plant.

Victor - Monaghan Co., (Apalache Plant) Arlington, S. C., is now operating every day, with no night work. This program will be continued until further notice.

Saxon Mills, Spartanburg, S. C., print cloths, have eliminated all night work, by alternating day and night forces in weekly operations, according to John A. Law, president and treasurer.

***Globe Mfg. Co.,** Gaffney, S. C. The recent sale of the plant and property to W. A. Gunter for $20,000, was not confirmed by the creditors, as required by law. Harry E. DePass, of Spartanburg, referee in bankruptcy, fixed as a new date of sale at public auction Nov. 3.

Ware Shoals (S. C.) Mfg. Co., of which Benjamin D. Riegel is president, resumed full-day operation this week, and indefinitely discontinued its night shift, it is officially stated. Machines that have stood inactive for weeks due to partial night operations will be again pressed into service.

Calhoun Mills, at Calhoun Falls, S. C., are on a curtailment program, by allowing the day hands to work one week and the night hands the next.

Tellico Cotton Mills Co., Tellico Plains, Tenn., which has not been operating for several years, is having the machinery and building repaired and resumed operations July 21. Local people are employed as far as possible. The plant now has 2,016 spindles, which will be increased in the near future. The officers are: J. O. Blackmon, president and manager, and F. E. Callaway, Jr., treasurer. The directors are: E. R. Callaway, F. E. Callaway, Jr., Hatton Lovejoy, J. O. Blackmon, and Henry G. Smith, all five of LaGrange, Ga., and E. P. Halsey and S. Y. Austin, both of New York City.

Wool

Bigelow-Sanford Carpet Co., Thompsonville, Conn., has suspended production on 50 broad looms in the axminster department, as the company is overstocked in these lines.

American Woolen Co., Andover, Mass., has resumed production at its mills at Shawsheen Village, following a ten-day shutdown for employes' vacation.

Wuskanut Mills, Inc., Farnumsville, Mass., resumed operations on July 21, following a shutdown for vacations since July 12, affecting most departments.

Blackburn Worsted Co., Northboro, Mass., whose plant was destroyed by fire several months ago, has resumed operations in the former Gibson plant on Whitney St., in that town. The new plant is equipped with electricity and water power.

Thorndike Co., West Warren, Mass., which shut down its woolen division on July 3 for two weeks or more, has recalled its employes because of orders that will keep them busy for a month. If the directors decide to continue the woolen division it is planned to concentrate operations in one mill instead of in all the plants which will enable the company to dispose of the idle structures.

Mohawk Carpet Mills, Amsterdam, N. Y., have deeded employes a large plot of ground which has been divided into gardens for cultivation.

***Acme Worsted Mills,** Jamestown, N. Y., which have been shut down for about two weeks for inventory and repairs, resumed operations July 21. It was erroneously reported that the plant had abandoned operations and a portion of the machinery and equipment removed to plant of the **Empire Worsted Mills, Inc.** The plant has not been acquired by the Art Metal Construction Co., as reported. No negotiations are being had with any company for the sale of the property, and but one machine has been moved to the Empire plant, although considerable spinning machinery will be purchased to balance up the machinery at the Acme plant.

Nantanna Worsted Co., Inc., Northfield, Vt., trustees have asked for an order authorizing them to sell the real and personal property of the company, which is in bankruptcy, and transfer 400 shares of capital stock to the **Northfield Spinning Co.** or to the Northfield National Bank and to attend to various other matters in connection with the bankruptcy proceedings.

Knit

William Carter Co., Barnesville, Ga., manufacturing knitted and rayon underwear, reopened its plant last week after having been closed for some time. The plant employs about 300 girls and women. Charles Lee is superintendent.

Golden City Hosiery Mills, Villa Rica, Ga., plant, which is newly equipped for the production of women's hosiery, has 50 circular knitting machines, and equipment for dyeing and finishing also. E. J. Williams is manager and superintendent.

*Indicates previous mention of project.

Evenknit Hosiery Mills, Bay City, Mich., have filed notice of increase in capital from $150,000 to $300,000.

Fownes Bros. & Co., Amsterdam, N. Y., are increasing operations by taking on many additional workers.

Spa Knitting Co., Ballston, N. Y., resumed full-time operations July 21 after a two weeks' shutdown for inventory.

Ballston (N. Y.) Knit Glove Co. has resumed operations after being shut down the first two weeks in July for vacation period.

Fuld & Hatch Knitting Co,. Cohoes, N. Y., will shut down July 26 for the annual two weeks' vacation period.

Fonda (N. Y.) Silk Fabric Co. is now operating near capacity with additional workers.

Frisbie & Stansfield Knitting Co.'s plant at Utica, N. Y., is being enlarged by the **Eagle Suit Co.,** new owners, in an expansion drive which calls for taking on 600 new workers and removal of the Brooklyn plant to that city.

Perfection Hosiery Mills, Inc., Burlington, N. C., plant which was destroyed by fire last March, has been rebuilt. New machinery will be bought, it is understood, as soon as the insurance has been adjusted. John Shoffner is president.

Mock, Judson, Voehringer, Inc., Greensboro, N. C., are moving additional machinery from their Philadelphia plant, which will make possible a production increase of about 20%, and also a considerable increase in the operating force. The building housing this full-fashioned hosiery mill was made sufficiently large to permit this expansion, without the necessity of providing additional space, and it contains room for still further expansion later. Work of installing this machinery is expected to be completed and in operation on or about Sept. 15.

O'Brien Hosiery Mills Co., Winston-Salem, N. C., has practically doubled its production by the purchase of additional split-foot machines from the Hemphill Co., Pawtucket, R. I. The O'Brien mill is practically standardized on the manufacture of 240-needle half-hose, retailing at 50c. and upwards.

Gem Knitting Mills, Philadelphia, Pa., manufacturers of sweaters, have purchased additional machinery which will enable them to offer fine cut merchandise with knitted ribbed bottoms, similar to their higher-priced numbers that are manufactured on Swiss or German machines.

Thomas W. Buck Hosiery Co., Philadelphia, Pa., closed its full-fashioned department temporarily last week and according to reports, submitted a reduction of 15% in wages to employes, which was not accepted.

Quaker Hosiery Co., Inc., Philadelphia, Pa., manufacturer of full-fashioned hosiery, has resumed operations. The plant has been closed pending settlement of wage question with the help. Although the management has not made a definite statement, indications are that both day and night forces accepted reductions in wages. One estimate places these at 15% for night and 15% to 23% for the day force, depending on the class of work.

*Indicates previous mention of project.

Union Knitting Mills, Philadelphia, Pa., manufacturers of sweaters, are reported to have acquired an interest in the **Fairview Mills,** Valatie, N. Y., spinners of merino knitting yarns. Yarns spun at the Valatie plant will be used by the Union Knitting Mills in the manufacture of their line of sweaters.

Quality Knitting Co., Inc., Stowe, Pa., recently organized with a capital of $75,000, will take over and operate local company of the same name. Reuben B. Hunter, Spring City, Pa., is the principal incorporator, and will be treasurer of the new company. Other incorporators are Ernest V. Hunter, Spring City; and Frank M. Hunter, Lititz, Pa.

Silk

Klotz Silk Mfg. Co., Clifton, N. J.—Frank E. Stripe and George L. Record have been appointed ancillary receivers for this company under bond of $500 each. The company is stated to have assets of about $1,300,000, and liabilities totaling $911,000.

Goody Silks, Inc., Paterson, N. J., recently organized with a capital of $25,000, to operate a local broad silk mill, will be represented by Kimmel & Kimmel, 136 Washington St., Paterson, attorneys. The company is headed by Ralph Wolff and Oscar Levine.

E. H. Kluge Weaving Co., West New York, N. J., has disposed of its mill and business to the **E. H. Kluge-Universal Weaving Co., Inc.,** recently formed to take over and expand the property. Last noted company is disposing of a note issue of $450,000, considerable portion of proceeds to be used for purchase of the E. H. Kluge Weaving Co. assets.

Pinehurst Silk Mills, Hemp, N. C., are operating on a full-time schedule, manufacturing silk and rayon goods. Seventy-two new looms and other equipment have recently been installed.

Katterman & Mitchell Co., Stanley, N. C., has resumed operations on a 30-hour schedule, according to a recent report. Employes of the day shift work during the morning while the employes who were formerly on the night shift now begin work at noon and operate the plant until 6 P.M. each work day.

Rose Mills, Inc., Philadelphia, Pa., have awarded a general contract to George Roe, 7711 Lyons St., for a one-story generator house at mill property recently purchased on Indiana Ave. A building permit has been issued.

Hertz & Morgan Silk Co., Pawtucket, R. I., has filed notice of incorporation under New York laws. Henry Morgan is representative for the company.

Cumberland Silk Mill, Rockwood, Tenn., was assured last week, when cooperation of New York interests and Rockwood citizens closed a deal for a silk mill. The building will contain 6,600 ft. of floor space and about 40 local women and girls will be employed. Operations will probably begin by Oct. 1, next. The plant was brought to Rockwood through the activities of the Rockwood Chamber of Commerce, of which B. J. Lamb is president, and the industrial department of the Tennessee Electric Power Co. Some 50 Rockwood citizens subscribed $10,000 for the building fund.

Rayon

Industrial Rayon Corp., Cleveland, Ohio, is operating its mills at about 52% of capacity, and will continue on that basis until further notice.

Viscose Co., Marcus Hook, Pa., is operating its different mill units on a basis of about 50% of capacity, and expects to hold to that schedule for some weeks.

Textile Patents

ARTIFICIAL silk and the manufacture thereof. 1,770,750. William H. Furness, National Park, N. J. Assigned to Cellocilk Co., Philadelphia, Pa.

ARTIFICIAL silk, Composition for and process of delustering. 1,770,114. Giovanni Tagliani, Basel, Switzerland. Assigned to Munitex Corp., Paterson, N. J.

ARTIFICIAL silk made from viscose, Process of treating. 1,770,412. Karl Leuchs, Berlin-Zehlendorf, Germany.

ARTIFICIAL silk, Treatment of. 1,770,729. Benno Borzykowski, Paris, France.

ARTIFICIAL silk, Method and apparatus for treating. 1,770,592. Joseph A. Firsching, Utica, N. Y.

CHENILLE and method of making the same. 1,769,970. Leo Silverman, Elkins Park, Pa. Assigned to S. Rosenau & Co., Inc., Philadelphia, Pa.

CIRCULAR-knitting machine. 1,770,469. Thomas Scott Grieve, Leicester, England.

CONE for the winding of yarns and threads. 1,769,929. Albert Lindenberg, Chicago, Ill. Assigned to Oscar Heinenman Corp., Chicago, Ill.

COTTON recleaner and gin, Combined. 1,770,544. John E. Mitchell, Dallas, Tex.

CURVILINEAR elastic fabric. 1,770,740. John V. Moore, Pawtucket, R. I. Assigned to Moore Fabric Co., Pawtucket, R. I.

FLAT knitting frame. 1,770,578. Max Lohs, Mataro, Spain. Assigned to Seyfert & Donner, Chemnitz, Germany.

FLAT knitting machine. 1,770,859. Ernst Oscar Nebel, Philadelphia, Pa.

LOOMS, Brake-controlling mechanism for. 1,766,862. William M. Wattie, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

LOOMS, Dobby lever for. 1,766,744. Albert A. Gordon and Roland M. Cook, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

LOOM driving mechanism. 1,766,758. William E. Lundgren, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

LOOMS, Electric stop motion for. 1,770,562. Theodor Curt Wagner, Chemnitz, Germany.

LOOM Mechanism. 1,770,269. Benjamin D. Hahn, Greenville, S. C.

LOOM stopping and let-back mechanism. 1,769,942. Horace H. Burdett, Hopedale, Mass. Assigned to Draper Corp., Hopedale, Mass.

LOOMS, Warp stop motion for. 1,766,804. George H. Shutt, New Bedford, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

LOOMS, Weft-detector for. 1,766,836. Oscar V. Paine, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

MACHINE for cleaning cotton and the like. 1,767,957. John Snelgrove Bachman, Rome,, Ga.

METHOD and device for applying oil or other liquid to thread. Ernest K. Gladding, Buffalo, N. Y. Assigned to Du Pont Rayon Co., New York.

NETTED fabric and method of producing the same. 1,769,953. Margaret Chichester Holland, Exmouth, England.

SELVAGE-trimming mechanism. 1,770,366. Horace H. Burdett, Hopedale, Mass. Assigned to Draper Corp., Hopedale, Mass.

SPINNING Frames, Twister tube for. 1,770,085. Henry A. Owen, Foxboro, Mass. Assigned to Davis & Furber Machine Co., North Andover, Mass.

TREATMENT of textile elements or yarn derived from rayon filaments or fibers. 1,770,047. Woldemar M. Sternberg, New York Mills, N. Y. Assigned to Robert G. Campbell, Utica, N. Y.

TUBE for the winding of yarns and threads. 1,769,928. Albert Lindenberg, Chicago, Ill. Assigned to Oscar Heineman Corp., Chicago, Ill.

WOVEN fabric. 1,770,134. Israel E. Heller, Buffalo, N. Y.

WELT bar. 1,770,849. Claude Hadfield, Philadelphia, Pa.

Questions and Answers

We undertake to answer, free of charge, to the best of our ability, questions pertaining to textile matters received from any regular subscriber to TEXTILE WORLD. We do not undertake, however, routine analysis of yarn or fabric, or investigation involving unusual expense.

Inquiries should give the fullest information and data possible. In the case of damage to material, a sample should be sent. All inquiries must be accompanied by the name of the person inquiring, not for publication, but as evidence of good faith. The identity of those seeking information on technical subjects will not be disclosed.

Letters expressing opinions or voicing criticism are cordially invited. These will be signed by the correspondent's name unless the letter itself contains a request that the name be withheld.—EDITOR.

Angora Wool on the Woolen System

Technical Editor:

Can you give us any information that will assist us in spinning Angora wool on the woolen system? (7262)

The class of wool in question is very hard to work successfully on the woolen system of carding and spinning. Owing to the wild, slippery nature of the fibers, it is very difficult to keep the stock uniform in weight on the card. Also the problem of getting sufficient rub in the roping so that it will come off the spools freely in spinning is very important. The work requires lots of care and close watching, as the successful accomplishment of these two points in carding will determine the quality of the spinning.

In order to obtain sufficient rub in stock of this class, it is necessary to drive the rub rolls very fast and have a very short stroke. The rubs should run at a speed not lower than 470 to 500 turns per minute.

Use an open-set, straight-tooth fancy at a slow speed of around 250 to 300 r.p.m. Run the tumbler and leader faster than usual on short stock. Also see that the weighing pan gets its weight evenly and the dumpings are not overlapping.

Use a good emulsion of about 4 quarts of oil to 12 quarts of water per 100 lb. of stock. This should give satisfactory lubricating and rubbing results.

It is not advisable to make the roping too light on the card, as the web is liable to tear on leaving the rings, causing defective roping. Make the weight to allow about 70 or 80% draft in spinning and use a small rim wheel on the outward draw to prevent the twist setting too quickly.

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Abrasions on Silk Stocking

Technical Editor:

We are enclosing herewith a pair of stockings knitted from a four-thread silk on a 45-gauge machine. Please examine these stockings. You will notice in the middle of the leg a fuzzy appearance on the surface of the stocking, which looks to us like slubs and split ends. Please report to us just where you think the fault lies, whether in the boarding operation, the dyeing, or in the yarn itself. (7246)

We find the trouble to be purely abrasions caused by careless handling of the merchandise. We cannot be definite in our statement as to just where the careless handling took place. The indications, however, point strongly to the damage having been done after the goods left the boarding room. However, it will be necessary for you to isolate the trouble yourself. This will necessitate your starting at the knitter's table and checking all the way through down to the finished goods. Such trouble can and does develop at the knitter's table on the legger before ever reaching the footer. Therefore, it will be necessary to carefully check all tables, trucks, and all other such appliances used in handling the goods in the gray room. After it has been proved that the abrasions are not being caused in the gray-goods room, it will then be necessary to follow through the dyeing machine, hydro-extractor, trays, and tables used in the boarding and finishing rooms.

The sample submitted is very loosely knit and will lend itself very favorably to pulls and damage such as is shown by the sample. We have seen such conditions develop from the rough hands of a stocking boarder; but where the trouble is as outstanding as in your sample it is probable that the responsibility resides in rough surfaces on either tables or trays which the goods have come in contact with after being boarded.

Your statement that the defect has the appearance of slubs and split ends is explained by the fact that only one or two filaments have been caught and drawn, which causes the other filaments to pucker or gather in lumps. You will find by carefully pulling the fabric at the point of broken or drawn filaments that the slubby appearance will be eliminated by drawing of the puckered threads back into normal position. The trouble is most assuredly not caused by imperfect silk.

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Preparing Celanese for Knitting

Technical Editor:

Will you kindly outline the methods used for oiling Celanese yarn so that it can be knit satisfactorily on a fine-gauged spring-needle machine? (7214)

In order to knit a good clean cloth, using Celanese and other types of acetate-rayon, it is necessary to prepare the yarn in somewhat the same manner as viscose rayon. The essential difference lies in the choice of oils and the length of time of the treatment. Viscose yarns are often oiled with blends of mineral and animal oils; acetate-rayon yarns, on the other hand, are best oiled with vegetable oils, of which, at the present time, olive oil is usually considered the best. Oils containing mineral oil do not have the proper penetrating and softening qualities to make them good winding lubricants for Celanese yarns.

We find that the soaking and extracting method gives the most satisfactory results. The oil can be heated with a closed steam coil in order to make it fluid enough to have the proper penetrating and conditioning qualities; 80° F. seems to be the right temperature. If the yarn is soaked in olive oil for about one half hour at this temperature and then extracted until it will not drip any more at the exhaust of the extractor, it will have about 9% oil content and will knit properly.

Not only will olive oil assist in the knitting, but it will be scoured out of the goods with the least amount of soap and alkali. Soap and alkali must be used in the minimum quantities in scouring acetate rayon; otherwise there will be a saponification of the rayon. This is accompanied by a delustering action that is not desired.

If machine oil or other mineral oils get on the Celanese during the knitting process, they must be removed before the goods can be dyed evenly. This is best done by taking a good sulfonated oil, diluting it about one to six with water, spotting the stained portions with this solution, and rubbing it into the spot until it is loosened. This should be rinsed out very carefully; otherwise it will become dried into the goods, cause a delusterizing, and prevent the affected spot from dyeing the same as the balance of the goods.

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Patent for Electric Tape

Technical Editor:

I note in your issue of May 21, 1930, a reply to inquiry 7156 on the subject of curling in the binding of electric tape. We feel that it would be only fair to the textile trade to let them know that electrical tapes manufactured as described in your article are covered by our patent, No. 1,748,737.

HORACE W. SIDEBOTHAM, Secy.,
John Sidebotham, Inc.,
Frankford, Philadelphia, Pa.

◆

Finishing Colored Duck

Technical Editor:

We are manufacturing quantities of duck which we wish to dye and size in the same way as the enclosed sample. We employ German dyes and find that after a time the weight of the duck shrinks, sometimes as much as 20%. We note also that the size does not penetrate, and accordingly does not raise the weight of the fabric. We are employing 75% waste in this low-grade duck. Will you kindly recommend an effective size for this work, one that will penetrate and increase the weight up to 10%? (7205)

We have examined the sample of dyed duck which loses excessively in weight in dyeing and finishing. That this fabric is not easily penetrated is shown by the surface dyeing. It is our opinion that much better results could be obtained in finishing if the fabric, before dyeing, were treated with a diastatic compound, such as diastafor or rapidase. This treatment would have the effect of softening the fabric and allowing both dyestuff and finishing material to penetrate to a greater extent.

It is also possible that treatment of the fabric, either in the dyeing process or in the finishing operation, with a penetrating agent, such as Nekal, would further assist in increasing penetration and allowing full weight in finishing. Either of the two following formulas should give satisfactory results on this type of work: (1) 100 gal. water, 45 lb. corn starch, 35 lb. dextrine, 25 lb. turkey red oil; or (2) 100 gal. water, 50 lb. dextrine, and 50 lb. sulfonated tallow. The addition of a hygroscopic agent, such as glycerin, to either of these baths may prove beneficial. Some finishers also use varying quantities of Epsom salts.

The loss in weight certainly is excessive, and it occurs to us that it is barely possible that the gray and dyed fabrics were not weighed at the same regain; i.e., the gray fabric may have contained a larger amount of moisture than did the dyed fabric. Addition of a hydroscopic agent to the finishing bath is for the purpose of making the fabric take up a larger amount of moisture and thus increase in weight. There are some prepared finishing materials of greater fluidity than either cornstarch or dextrine, but it is doubtful whether the use of these would prove of any great advantage unless the fabric were first made more absorbent, and in that case the sizing materials recommended should prove effective.

THOUSANDS of inquiries are handled annually by the Technical Editors. In order that as many readers as possible may benefit from this service, we select problems of general interest for publication each week.

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Wet Spinning of Cotton

Technical Editor:

If wet twisting of cotton is so desirable, why is not cotton spun in a wet condition? (7276)

Experiments have shown that wet spinning of cotton has no permanent advantage. Although the resulting yarn is stronger while the moisture remains in it, the advantage is lost when the yarn becomes dry. Wet spinning does not appear to give the yarn any greater smoothness or luster.

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Oiling and Cleaning Electric Motors

Technical Editor:

When is the best time to oil electric motors used in a textile mill, ranging in size from 5 to 100 hp., running from 750 to 1800 r.p.m.? How can you prevent oil from dropping on the floor or from wasting and at the same time be sure of sufficient lubrication? What system of cleaning would you suggest to prevent oil dropping? (7242)

Perhaps the best reply to this query can be given by detailing the system as followed out in a large eastern mill which operates some 1800 electric motors ranging from $\frac{1}{8}$ to 300 hp. The lubrication of all motors is looked after by employees of the electrical shop, which is a branch of the plant engineering department. These men are all licensed electricians, and are fitted to detect and repair all electrical defects that they may find during the inspection of the motors, which is a part of the lubrication program.

All of the small motors, including several hundred $\frac{3}{4}$- and 1-hp. loom motors, are fitted with wick oilers and require attention only every two or three months. The

other motors are fitted with oil reservoirs and ring or chain-oiling bearings. Inspection schedules are so arranged that the motors are examined every four weeks. This work is mostly done on Saturday afternoons, or at other times in the week if the motors are not in operation.

At the time of the inspection the motors are blown out with compressed air, particularly if they are located in rooms where the air is dust-laden or where fly and flocks tend to accumulate on the motor frames or in the windings, and the motor frame is wiped free from any oil that may have collected. Even where there is no oil leakage, if there is much fly or flocks that collects on the frame, there is liable to be some oil that has been spread by capillary attraction. If the bearings happen to be a bit loose or worn, or if there is any vibration of the rotor, a slight amount of oil will work out on the shaft or bearing housings, and from there the fly will be very likely to spread it somewhat.

Under every motor that is suspended overhead is hung a shallow galvanized iron pan of sufficient size to extend slightly beyond every part of the motor. This pan is hung by metal straps from the bolts of the motor base or from the timber supports, and serves to catch any drops of oil that may fall from a bearing or from any saturated bit of fly, as does sometimes happen. Unless there is some serious defect in a bearing, it will not throw oil—that is, so that it will fall beyond the limits of the drip pan. The level of the oil in the bearing reservoir as indicated by the sight glass is observed and new oil is added if needed. Care must be taken not to fill the oil reservoir above the proper level, as this would cause the oil to come out around the shaft.

At the same time the employee examines the electrical connections, tests with a gap gage the space between the rotor and the stator to ascertain if the bearings have so worn as to reduce this space to an extent that endangers safe operation, and examines the exposed parts of the stator coils for any evidence of defective insulation or damaged coils. Frequently during these periodic inspections minor defects are detected and corrected, which, if left as they were, would at some later time perhaps cause serious damage to the motor and possibly a shutdown. A high-grade light engine oil or an equivalent machinery oil is used for lubrication. Sometimes in a few special cases, where a bearing tends to run warm, a heavier-bodied oil is mixed with the lighter oil.

In the card room, which is operated on a 24-hour basis, the motors are blown out every week by the room employees, but the lubrication and inspection is performed as already outlined. Dust and fly collects very quickly and very thickly in such rooms, and weekly attention at this point is necessary. The motors in this room are connected to the outside air with galvanized-iron flue pipes in such a manner that the suction caused by the running motor draws in clean, cool air, and blows it through the coils and out into the room.

This scheme is of great value under such operating conditions, and ensures a clean and cool-running motor.

◆

Thread Curls in at Edge of Crepe-de-Chine

Technical Editor:

We are enclosing a piece of cloth which is made from four-thread Japan, 13/15 crepe. You will note upon examination that the ends curl in several inches from the side of the cloth. If possible, we would ask you to kindly advise us as to the cause of this. (7245)

You did not mention whether this defect ran for the entire length of the piece, whether this was the only defect, or whether it ran intermittently. However, we give below an explanation relative to the sample submitted.

All of the defects occur on the box side of the loom. Examination of each shows that there are both right and left twist trapped in the left-twist shed, and it would appear that the left twist was the one which has caused the trouble. Furthermore, the defect starts where the empty left-twist quill was replaced with a full one, as there is a tail sticking out from the edge which denotes that fact and the defect runs for about the length of a quill.

It would appear that this quill of left twist was either lively or quilled very dry and, as the shuttle hit the box, the shock knocked off a bunch from the quill. Then when the left-twist shuttle was called again, the snarl from it, not having a chance to straighten out, was caught in the shed. In some places this same snarl caught the right twist and pulled it into the shed also.

◆

Loom for Narrow Fabric

Technical Editor:

Will you kindly inform us on what type of machine the enclosed narrow fabric can be made. We have submitted this sample to some textile experts and they tell us that this material is made on a power loom, but they do not know what type of power loom. (7238)

The fabric was made on a wide-dobby narrow-fabric power loom, equipped with a three-bank batten; i.e., three shuttles to each piece woven on the loom. The pattern is very simple and made on seven harnesses. Although a three-bank batten must be used, only one bank or shuttle is actually used for the filling, the other two banks or shuttles being used to make the raised-up or terry effect.

◆

To Prevent Rayon Pile Rising

Technical Editor:

We have had considerable trouble with the pile on our rayon goods rising. We are enclosing two samples, and would appreciate it very much if you could give us some idea as to the cause. The sample with the raised pile was taken from a down-filled cushion, and had only been on it a week or two. We know that dampness will cause the pile to rise, but it hardly seems possible that a down-filled cushion could have been damp. If you will hold a damp cloth underneath the good sample for a minute or two, the pile will begin to rise. Anything you may suggest for overcoming this trouble will be greatly appreciated. (7222)

We note that the pile is spun rayon, which has a tendency to rise more than the filament rayon. To overcome the trouble, give the goods a light pressing on a rotary press. This will set the pile in the backing and provide a firmer handle.

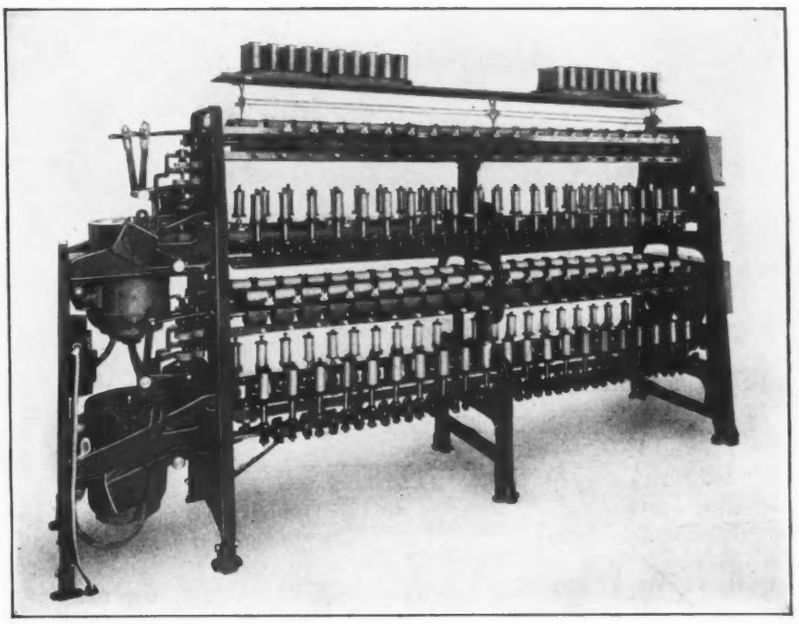
New Machinery & Processes

Silk and Rayon Twister

DEVELOPMENT of a double-deck twister is announced by U. S. Textile Machine Co., 314 Depot St., Scranton, Pa. This Model A machine is especially suitable for producing tram, organzine, crepe, and grenadine twists in silk and rayon. It is designed to produce twists with from 1 to 80 turns per inch.

One deck is offset more than the other, thus giving more working space and affording greater visibility than is the case when both decks are in line. This latter feature allows the operator to locate and correct broken ends easily. Since yarn travels the same distance and at the same angle on both decks, even tension is maintained throughout the machine. Each deck can be operated separately.

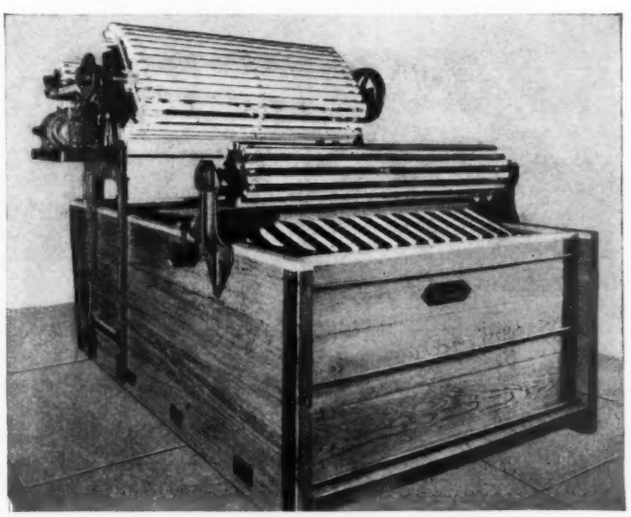
A traverse mechanism of new design, with self-lubricating cam and roller, is said to give steady stroke and excellent traverse. Twist gears are mounted outside of the frame on a bracket which can swing opposite twist as desired. To insure uniform tension and smooth and even speed, each deck is equipped with an individual 2-hp. motor mounted on a slide controlled by a rack gear and weight. It is stated that the two-motor application has proved efficient and operates with a high power factor. The twister is of rigid construction with each part fully machined.



Double-deck twister

Silk Dye Beck

FOR processing silk and rayon fabrics Rodney Hunt Machine Co., Orange, Mass., has placed on the market recently the Type SK silk dye beck. Several unique features are embodied in the design and construction of the oval reel and the slatted front roll. These insure tightness of the slots at all times and allow the bolts holding them to be adjusted indefinitely.



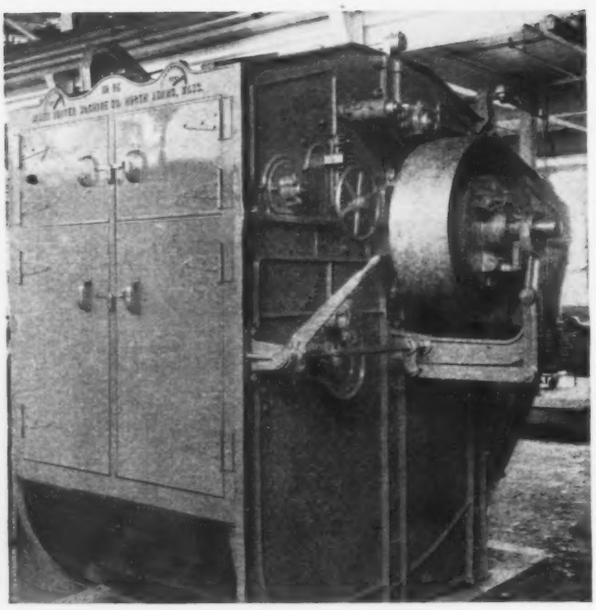
Silk dye beck

The machine is fitted with an unloading roll, which may be either belt or chain driven from the reel shaft, and which may be located on either the back or the front of the machine as desired. Use of the unloading roll does away with the old-style unloading platform which required two men to handle. All bearings on this machine are ball bearings incase in water- and grease-proof housings. Drive is by direct-connected motor, driving through worm gear and roller chain to the reel shaft, thus providing simple, quiet, and flexible drive. The motor-drive equipment is mounted considerably above the top of the tub, where it is out of the way of dampness and moisture due to splashing. The roller-chain drive from the worm-gear reducer to the reel shaft provides easy and convenient means of changing reel speeds without having to change the ratio of the reducer itself.

The counterbalance stop motion can be set for very light action, and operates through an electric switch to stop the motor immediately should tangles occur. No matter how the goods may travel about in the tub, it is impossible to draw them across a corner of the rail, for this is so made that it always presents a smooth surface to the fabric. The dye beck can be furnished with plain wood lining, or with either Monel-metal or Allegheny-metal lining and fittings.

Fulling Mill

DEVELOPMENT of a new fulling mill, the Model 25, and important improvements in the Model 30 machine are announced by James Hunter Machine Co., North Adams, Mass. Model 30, a large mill having a



Model 25 fulling mill

capacity of from six to twelve strings per set, was described in the Nov. 2, 1929, issue of TEXTILE WORLD. To minimize the necessity for repairs, the machine is now lined to the top with cypress and is metal clad. In construction the Model 25 is a replica of the larger mill, but is smaller in size, taking two to six strings per set and being designed for smaller plants that require a machine of smaller capacity than the Model 30. With the Model 25 normal fulling production is said to be increased from 50 to 100% over older types of such mills.

Sides of both mills are of cast iron reinforced by heavy ribs; cast-iron box girts support the sides; and both sides and girts are machined at point of contact. Doors are of plywood covered with monel metal, while the crimping box has cast-iron sides lined with hard wood.

Both machines are fitted with adjustable metal throat operated by a handwheel from the outside of the mill, and are furnished with gages to record settings so that results can be duplicated. Pressure for the top rolls is adjusted in a similar manner, while a reversing handwheel releases roll pressure, and when reversed far enough, raises the roll. Adjustments can be made while the machines are in operation.

Large Swing Lathe

FOR machining work of large diameter on which only light cuts are taken, a new model, large swing lathe has been developed by South Bend Lathe Works, South Bend, Ind. This lathe is a regular 16-in. lathe fitted with raising blocks to increase the swing from 16¼ in to 24¼ in. over the bed. The raising blocks are firmly fitted under the headstock, tailstock, and compound rest. The compound-rest raising block is graduated on the base, so that the tool can be fed to the work at any angle desired. It is fitted with automatic cross and longitudinal feeds and is especially built for the cutting of screw threads. The lathe is designed to meet the requirements of small plants who machine work of large diameter, also for machine shops, repair shops, service stations, and general all-around machine work.

By using a special form of turning tool a flywheel 24 in. in diameter can be machined on its face. A roll 16 in. in diameter will swing over the saddle; and therefore can be machined between centers for its entire length. Since the lathe can be fitted with lathe chucks, drill chucks, and other attachments, a great variety of work is made possible. It can also be supplied with counter-shaft drive or silent-chain motor drive and can be had in any length bed from 6 to 12 ft.

Metal Stapling Device

ANNOUNCEMENT is made by the Chicago Tool & Engineering Co., 8389 South Chicago Ave., Chicago, of a new stapling device designed to speed up operations in plants and shops where stapling is carried out.

This device, which resembles a small automatic pistol in size and shape, weighs about 3½ lb. and is operated on the same basic principle as the machine gun. From 5,000 to 10,000 staples, depending upon the nature of the job and thus upon the size of the "ammunition," can be expelled from the machine without reloading. A winding coil inside a magazine on the muzzle of the "gun" contains the staples and discharges them just as fast as the human finger can pull the trigger. While the device is designed especially for high-production work in large plants, a smaller, hand-operated model is available where mass production is not needed.

Acid Pump

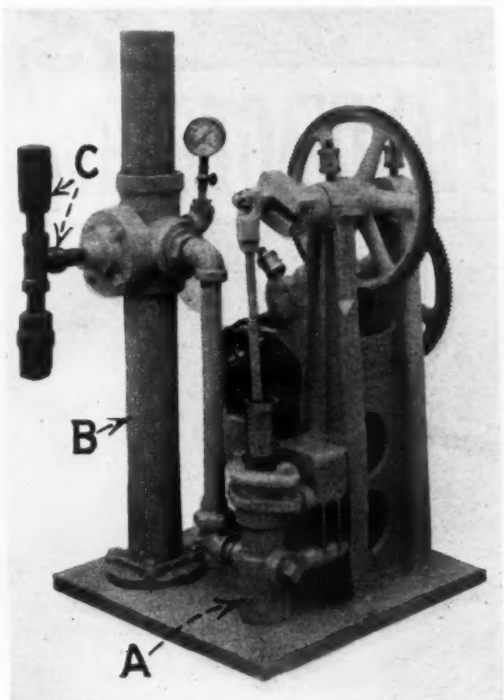
PAIGE & JONES CHEMICAL CO., Hammond, Ind., has placed on the market recently a self-priming, adjustable-stroke, plunger-type acid pump. The pump is produced in three sizes, having capacities of 1, 2½, and 5 gal. per minute respectively. Standard pumps are suitable for use up to 125-lb. pressure; but if necessary, pumps can be supplied to handle greater pressure and larger capacity. The motor is directly connected and the stroke is adjustable at the crank. The piston pump, *A*, is a conventional-type, cast-iron pump without check valves, which operates on ordinary water or any other suitable fluid.

The plunger pumps against a closed system filled with water, including cylinder *B*. Hanging in the center of cylinder *B* there is a gum-rubber sack attached by hard-rubber piping to hard-rubber fittings

Metal stapling device

and check valves, *C*. The lower check valve is the inlet, and the upper the outlet. Impulses of the water pump at 50 r.p.m. alternately draw open and press closed the rubber sack, thus pumping the acid contained in the rubber parts only in the desired amount per minute.

It is stated that the rubber sack is called upon to withstand practically no differential pressure and that the rubber parts can all be quickly removed in one unit for inspection by removing four capscrews. Mechanism for eliminating air which may collect in the water part of the system around the plunger and automatically replacing with water is contained in the upper portion of cylinder *B*. A gage insures proper operation of the pump.



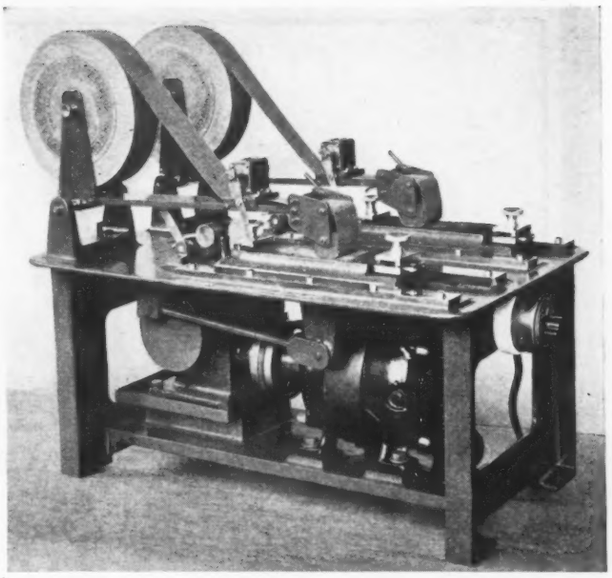
Acid pump

Machine Determines Wearing Qualities of Textile Fabrics

THE June 5, 1926, issue of TEXTILE WORLD contained an article dealing somewhat at length with the various wear-test devices that were then in use for obtaining comparative results, and explained in detail a reciprocating type of machine which at that time had just been developed in the fabric laboratory of the United States Testing Co., Inc., 316 Hudson St., New York.

Since the introduction of this abrasion machine, extensive research has been carried on to determine the most suitable emery cloth tape to be used for the abrading surface, and to find the most accurate method of arriving at the comparative wearing qualities of two fabrics after they have been submitted to the actions of the wear tester.

The construction and mechanical parts of the machine have also been greatly improved. Some 1,500 commercial wearing tests made by the United States Testing Co. have demonstrated the value of the machane; and recently, because of the demand by textile manufacturers for a device for determining the comparative wearing qualities of fabrics, the machine in its improved form has been offered for sale on the market.



Device for determination of wearing quality of fabrics

Working parts of the machine are clearly shown in illustration, with the two samples of fabric held firmly in place by the clamps and the abrading surfaces resting on the fabrics in position for the test. The wearing test is made by abrading samples cut from both the warp and filling direction of a fabric and comparing the tensile strength in both directions before and after abrasion, supplementing the comparative loss in strength with a visual comparison. The tensile strength before and after abrasion is made by the strip method to make sure the same number of threads are broken. The test is wholly comparative. Table I shows a few comparative wearing tests. Relation of tensile strength to the number of abrasion strokes is especially noteworthy.

Table I—RESULTS OF TESTS MADE ON UNITED STATES TESTING CO. ABRASION TESTER

	Overcoating							
	Warp Individual Breaks			Average lb.	*Filling* Individual Breaks			Average lb.
Original Sample...	35.0	35.0	35.0	35.0	31.0	31.0		31.25
After 200 strokes	31.5	31.5	29.0	30.7	29.0	27.0		28.00
After 600 strokes	28.0	29.5	27.5	28.3	29.5	29.0		29.25
After 1000 strokes	27.0	24.0	24.0	25.0	27.0	26.0		26.50
	Worsted Suiting							
Original Sample...	48.0	47.0	48.5	47.83	47.0	48.0	47.0	47.33
After 800 strokes	35.0	35.5	35.0	35.16	34.0	32.0	33.0	33.00
	Bleached Duck							
Original Sample...	84.0	83.5	83.0	83.5	53.0	57.5	55.0	55.1
After 900 strokes	44.0	45.0	42.0	43.6	27.0	25.0	20.0	24.0
	Denim							
Orininal Sample...	125.0	134.0		129.5	69.5	67.5		68.5
After 200 strokes	77.5	67.5		72.5	66.5	68.0		67.2
After 400 strokes	62.5	71.0		66.7	68.0	70.5		69.2
After 600 strokes	55.5	60.5		58.0	66.0	62.5		64.2
After 1000 strokes	54.0	41.5		47.7	67.5	59.0		63.2
After 1500 strokes	34.5	38.0		36.2	58.4	69.5		64.0
After 2000 strokes	29.0	28.0		28.5	No sample available			
	Comparison of Three Samples of Hickory Stripe							
	Sample No. 1							
Original Sample...	117.0	124.0	124.5	121.83	90.0	80.5	75.5	82.0
After 500 strokes	91.5	71.5	86.5	83.16	89.5	73.5	79.5	80.83
	Sample No. 2							
Original Sample...	96.5	100.5	98.0	98.33	76.5	75.5	78.0	76.66
After 500 strokes	21.0	19.5	27.0	22.5	76.5	71.5	80.0	75.83
	Sample No. 3							
Original Sample...	111.5	112.0	124.5	116.0	103.5	98.5	94.0	98.66
After 500 strokes	78.5	79.0	67.5	75.0	101.5	89.0	96.5	95.66
	Comparison of two Samples of Shirting							
	Sample No. 1							
Original Sample...	57.5	62.0	63.0	60.83	62.5	62.5	65.5	63.5
After 200 strokes	46.5	52.0	56.0	51.50	53.0	53.0	46.0	50.66
	Sample No. 2							
Original Sample...	67.0	62.5	62.5	64.0	57.0	51.5	56.5	55.0
After 200 strokes	66.0	56.5	61.0	61.16	45.0	51.0	53.5	49.83

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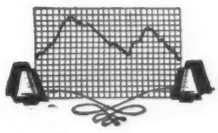

No Early Business Advance Likely

Stability, However, May Possibly Come Sometime in Fall, Says Dr. Haney

SUMMARY

There will be no early sharp recovery from the current major business recession. No significant barometers point definitely upward, and purchasing power is low. However, some possibility of stability during the fall exists. The textile industries should be among the first to recover, but progress would be retarded by any failure of business in general to improve.

•

The analysis and forecast by Dr. Lewis H. Haney, Director, New York University, Business Resarch Bureau, which regularly appears on this page, considers various branches of the textile industry from week to week. The conclusions reached in the Analyst are mostly forecasts and generally apply to a time two or three months ahead. The Analyst is based on statistical data and does not reflect temporary trade sentiment.

THE question now in everyone's mind is: When will business recovery set in? Are there any indications that the recovery period is near?

We should first recognize that no one can know the answer to the first question. Business forecasting is not sufficiently exact to allow anyone to do much more than guess at the precise time.

We can, however, make three statements with a high degree of accuracy:

1. There is no scientific basis for saying that recovery will occur in less than three months. No significant "barometers" of proven value yet point definitely upward.

2. Industrial conditions are not yet favorable to any early or sharp business recovery; for purchasing power among farmers and laborers continues low and declining, no known shortages exist (supply not yet being adjusted to demand in many industries), foreign demand for our products is poor, and credit is not yet completely liquidated, although short-term money rates are low.

3. Precedent is uncertain, as is so often the case, and shows the possibility that recovery may not come until early 1931. For example, business cycles average about 3½ years in duration, or 42 months; but since the bottom of the last cycle in 1927 only 30 months have elapsed. Business recessions ordinarily last from one to one and one-half years. This one has lasted about a year. On both these bases of comparison there is no sure indication of recovery this fall. But other precedents are more favorable. Usually business recovery is not long delayed after money rates get as low as they now are. In the past such a rising trend in the investments of the member banks and in the bond market as have now been in evidence for several months have usually preceded recovery.

We may further say that definite indications of recovery will appear in advance. These will doubtless consist of a recovery in raw material prices accompanied by a less rapid decline, or stabilization, in other prices. The P-V line will rise and approach normal. Stocks of basic commodities will, by declining, show that liquidation is being completed. Factory employment will cease to decline. When these signs develop (somewhat in the order mentioned) we can definitely forecast recovery.

However, it can be said that considerable progress has been made in the direction of correcting past excesses. The evidence of this progress is now most interesting and deserves a careful summary. We attempt such a summary under the following seven heads.

Indications of Progress Toward Business Recovery

1. In the first place, the prices of a good many raw materials are getting down to a liquidation basis, several being at or below cost of production. These include sugar, silk, wheat, copper, and rubber. As a result, drastic curtailment of production is assured, and demand will be stimulated.

2. Retail prices, too, are beginning to decline; and a wholesome readjustment of such prices to the decline in wholesale prices will ultimately stimulate trade, and allow desirable readjustments in money wages without injury to laborers.

3. Real progress has already been made in curtailing the industrial output. While some further curtailment will be required, it is now true that current additions to supply have been reduced and will before long restore the balance with demand. (See Fig. 1.)

4. In this connection, we may see the first faint signs of an approaching reduction in the excess stocks of basic commodities. Probably this is true even in the case of raw silk. Certainly it is significant that, while stocks of refined copper increased last month, the stocks of blister copper have been decreased.

5. Bank credit is well along in the liquidation process. Commercial loans have been greatly reduced, and even brokers' loans are not far from a tenable level. When the total loans on collateral as reported by the member banks are considerably reduced, the proces will be complete.

6. Already short-term interest rates have become very favorably adjusted to long-term interest rates as represented by the yield on high-grade bonds, which

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tends toward a stronger bond market.

7. Finally, it may be said that building activity appears to be scraping bottom, and that all indications point to a moderate recovery before end of year.

While the textile industries are in a depressed condition, it is not unlikely that they will be among the first to recover from the general business recession. We may remember that these industries have been in a semi-depressed condition for a long while, and have been curtailing for a longer period than have those industries which have been more prosperous. Moreover, the textile industries during the past decade have moved in two-year cycles and if they continue to do so they should reach bottom this summer. (See Fig. 2.) While the general business recession will naturally retard recovery in the textile industries, it seems rather likely that they will recover moderately by fall.

In summary, we are in the midst of a prolonged major business recession—one which presents a broad "valley." It is impossible to say just when recovery will set in. Probably there will be no general recovery for a period of at least three months. But it is not unlikely that the worst of the recession will be over by September, and that we will be seeing one industry after another "turning the corner" by October. At least, stabilization should be in evidence by that time. The recovery will probably be irregular and gradual when it does come, and business is not likely to regain a condition that may be called fully normal before next spring.

The wise business man, meanwhile, will proceed cautiously but courageously. This is no period for pessimism, but for cautious determination. Skillful planning, a wise readjustment of costs and prices, hard work, economy and saving, will carry us through the valley. Then, some day, we will find the prices of basic raw materials turning upward, and the whole price structure gradually approaching stability.

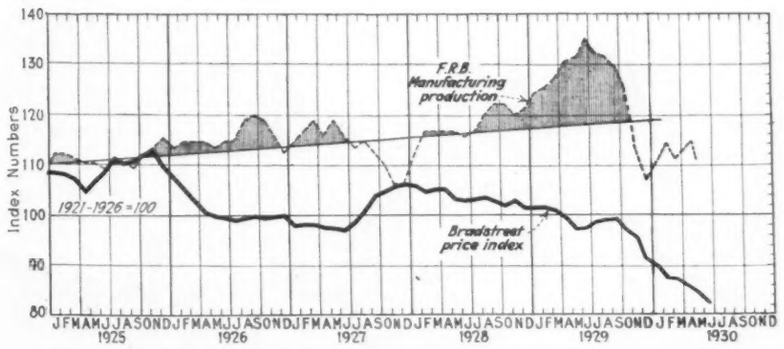

Fig. 1—PRODUCTION AND PRICES—Industrial Production—Average Daily, Adjusted for Seasonal Variation, Federal Reserve Board; Commodity Price Index—End of Month, Bradstreet's Journal. Average 1921-1926 = 100 for both indexes.

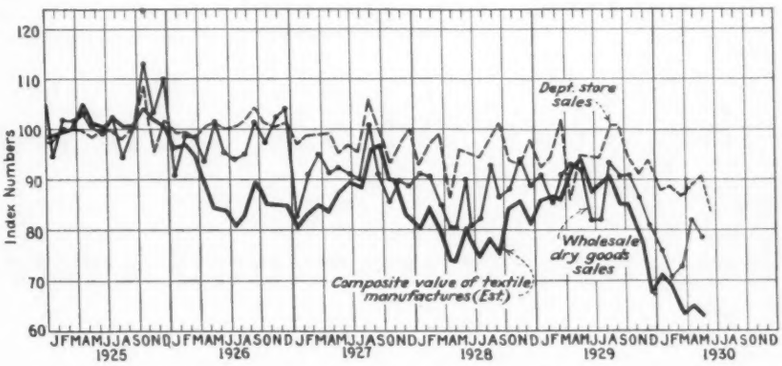

Fig. 2—GENERAL TEXTILE BAROMETER—Wholesale Dry Goods Sales—Adjusted for seasonal variation; 1922-1926 Average = 100; (Federal Reserve Board) Dep't Store Sales—Adjusted for seasonal variation and trend; (Federal Reserve Board) Composite Value of Textile Manufactures (Estimated)—Weighted Composite of Cotton, Wool, and Silk Machinery Activity adjusted for Seasonal Variation and price levels (N. Y. University, Bureau of Business Research).

Large stocks of textiles, copper, zinc, and similar commodities will be found to be declining. The collateral loans of the member banks will be much lower. The employment curve will cease to decline. Then we will know that a new period of business expansion will be at hand.

The Textile Trend

COTTON TEXTILE MARKETS: A revival of demand resulted in an improved tone in the cotton-goods market. Print clothes were the outstanding item, and several standard constructions gained in price. Interest tapered off slightly at the outset of the current week due to a decline in cotton and a prolonged heat wave. The weather caused a sudden call for sheer dress goods, which went at bargain prices. At the print-cloth end stronger sellers are turning down present prices. Buying is confined to spot and nearby, with very few willing to accept contracts at current rates.

WOOL TEXTILE MARKETS

With general trading slight, market interest was centered on the American Woolen Co. openings of tropical worsteds, flannels, and men's staple suitings for spring 1931. Prices are reduced more than expected, and show cuts of 5-10%. Staples are reduced 10 to 25c. per yd., and tropicals 17-33c. from last fall. Lower raw-material prices and manufacturing economies are given as the reason for the reductions. Outsiders believe that the big company's prices mark the bottom for fabric quotations due to basic strength in raw wool. Interest in worsted yarns absent; prices are spotty and trending lower.

KNIT GOODS MARKETS

Knit goods markets are quiet, due to mid-summer lull. Hosiery has failed to rally, and there is little prospect of early improvement; full-fashioneds are weak, with very few orders being placed, and these mostly of the bargain type. At the outerwear end bathing-suit producers are busy planning their 1931 lines; new styles will continue to stress sunback and men's suits will be more skeletonized. Heavy-weight sweaters have improved slightly. Moderate call for worsted polo shirts. Underwear industry quiet. There is some reorder business being placed on lightweights, but producers are devoting most of their attention to planning 1931 lines. Heavyweights still sluggish.

SILK TEXTILE MARKETS

Position of raw silk has improved; tone is slightly stronger, and prices have advanced 5 to 10c. Market is hopeful that upward trend will continue, but buying is still hesitant. Thrown silk is quiet, with some business available at crepe- and grenadine-twist end; this demand is less than trade had looked for. Spun silk quiet, but market tone is good and prices hold steady; improvement looked for in mid-August. Broadsilk mills report improved activity in fall commitments; demand stresses canton crepes, sheers, velvets, and metals; stocks building up.

Reaction Against Lustre Spreads.

One of the significant trends for Fall, which is as yet but little appreciated, is the reaction against lustre, it was asserted here yesterday. While, as in the case of hosiery and certain other types of rayon merchandise, some notice already has been taken of this trend and lustreless goods featured, this Fall many other types of apparel and accessories will be affected. Dull-lustre dresses, silks, handbags and underwear were listed as among the major items. Underlying the development, which is expected to continue for a substantial period of time, is the belief that the consumer has been "fed up" on lustre and it is desirable to avoid this characteristic

N. Y. Times
July 3

Bemberg

REG. U.S. PAT. OFF.

the original dull lustre yarn

the yarn whose dull lustre is natural

the yarn whose dull lustre is permanent

the strongest dull lustre yarn

Are you capitalizing on the unique characteristics of Bemberg to produce fabrics for this fall that are style right? Our technical and merchandising departments are at your service. Write to the Co-operative Merchandising Dept., American Bemberg Corporation, 180 Madison Avenue, New York City.

1. Georgette or chiffon crepe lingerie.
2. Single bar tricot knit underwear.
3. 42 gauge, semi chiffon full fashioned hose.
4. White pique that stays white.
5. 39 gauge service weight full fashioned hose.

"MADE OF BEMBERG" IS A STAMP OF QUALITY

Interest in Mill Shares Small

Buying Power At Minimum And Prices Generally Easy

BOSTON.

MILL share markets this week were about as apathetic as possible, barring their passing entirely out of the financial picture. Brokers encountered little or no buying demand, and the only interest visible was concerned chiefly with the midsummer speculation as to how much lower stocks might fall. At the Boston auctions, although there were a number of good shares on the catalog, only three sales were made, totalling 71 shares. A group of leading New Bedford shares reached 30.44 as compared with 33.23 a month ago, and the average price of a number of Fall River shares stood at 28.75 as compared with 31.26 a month ago. On the Boston exchange Bigelow-Sanford rose five points on declaration of dividend but soon lost part of its gain. On the New York exchange American Woolen shares were easier than for several week past, the preferred touching 26.

The fate of the Whitman Mills, New Bedford, Mass., is still undecided, but within the past few days the possibilities of continuing the corporation under the present regime are understood to have brightened slightly. Fresh capital may become available under certain conditions, which will enable the corporation to tide over its current bank obligations. Failing that, the two most talked of alternatives continue to be either complete liquidation or absorption by the Berkshire Fine Spinning Associates, Inc. If the Berkshire interests are able to secure the Whitman, it is thought by some observers that they will have purchased at an attractive price a plant which will go far to diversify the Berkshire's present production.

COLLINS-AIKMAN PROFITS

Net profit of Collins & Aikman Corp. in the second quarter of its fiscal year, based on orders booked, is likely to be about the same as in the first quarter, when net profit was $759,081, equal, after preferred dividends, to $1.01 a share on 587,633 shares of common stock. Net for the first half should thus be around $2 a share, against net profit of $1,829,406, or $1.90 a share, in the fiscal year ended March 1, 1930, and $1,905,555, or $1.85 a share on 591,833 shares, in 1929.

The sharp improvement in showing made this year in face of adverse business conditions is due to more efficient management and operation and to larger volume of business obtained. There has been a 14% increase in use of pile fabrics for automobile seat coverings in first half of the calendar year. The company now has its operations adjusted to a large volume of business, with low operating costs and moderate margin of profit.

Financial position at close of the last fiscal year on March 1 was good, with $703,805 cash, $7,183,068 inventories, and $2,393,662 receivables. Current assets totaled $10,547,188, against $1,056,357 current liabilities. Increased volume of business this year is indicated by the fact that receivables are about $400,000 more than a year ago, but inventories, on the other hand, are down over $900,000. Plants are carried at $12,201,219. There is no funded debt nor bank loans. There is $9,760,000 $7-preferred outstanding ahead of the common stock.

BIGELOW-SANFORD DIVIDENDS

Directors of the Bigelow-Sanford Carpet Company have declared a regular quarterly dividend of $1.50 a share on the common stock, payable Aug. 1. Two regular quarterly dividends of 1½% also were ordered on the preferred shares. A statement issued by the directors of the company to be mailed to stockholders says: "The strong financial condition of the company, the large reserves for contingencies set aside from earnings in previous years, and confidence in the future have prompted the directors to pay the common dividend at this time, although it has not been fully earned. Inventories as of June 30 have been taken at cost or market, whichever was lower, and necessary adjustments charged to reserve for contingencies. On Jan. 1, 1930, the company had outstanding $5,000,000 of serial notes, maturing Nov. 30, 1930 to 1939. On May 15, the 1930 and 1931 maturities, totaling $1,000,000 were called and paid."

PEQUOT TREASURER OPTIMISTIC

Treasurer Ernest N. Hood of the Pequot Mills, Salem, Mass., predicted at the plant's annual sales conference July 18 that by August the tide will have turned, and that business in the last four months of the year will prove to be much larger in volume and more profitable. Treasurer Hood said: "There has been a major business depression but it is generally believed that better things are in prospect, with normal business not many months away. The drastic remedy of curtailment effected in the textile industry as well as in other lines of business has had its effect. Commodity prices are at or near the bottom, and the only substantial movement in these prices must be up. Stocks of goods in all hands have been reduced to a low volume, and conditions in this respect are ready for an upturn in business. The best buying season of the year is approaching, and we feel confident that by the first of next month the tide will have turned."

KENDALL PROFITS DECREASE

Net profit of $148,640 after depreciation, interest, Federal taxes, etc., is reported by the Kendall Co. for the 24 weeks ended June 14. Surplus of $102 remains after deduction of $40,611 subsidiary preferred dividends and $107,927 dividends paid on Kendall participating preferred series A stock. Profit compares with $554,070 and surplus of $384,449 after subsidiary preferred dividends and preferred dividends of Kendall for the 24 weeks ended June 15, 1929. Current assets of $7,956,077 and current liabilities of $2,567,198 are shown by the balance sheet as of June 24, with working capital at $5,388,879.

SOUTHERN STOCKS DECLINE

CHARLOTTE, N. C. — A decline of $1.56 per share was registered in the average bid price of twenty-five most active southern cotton mill stocks according to figures compiled by R. S. Dickson & Co. for the week ended July 19. The present average stands at $71.48, compared with the high since 1920 of $144.50 reached on March 15, 1923. The present average represents a decline during this seven year period of $72.02 per share, or in excess of 50%. By applying the above drastic deflation to the southern textile industry as a whole, this represents an estimated shrinkage in quoted values of over $100,000,000. There has been no noticeable improvement in the demand for textile securities. Trading throughout the week was light.

BOSTON STOCK AUCTIONS

The following sales of textile shares were made at Wednesday's auctions:

Shrs.	Mill	Par	Price	Change
35	Associated Textile.	100	35	....
2	Farr Alpaca.....	100	67½	+½
34	Bates Mfg.....	100	81½	+3

Boston Wool Receipts

Receipts of domestic and foreign wools at Boston, also imports at Philadelphia and New York for the week ended July 19, based upon data compiled by the Market News Service of Bureau of Agricultural Economics, Department of Agriculture, are as follows:

Domestic.....	12,390,000	137,280,000	108,900,000
Foreign.....	1,100,000	45,336,000	72,637,000
Total.....	13,490,000	182,616,000	181,537,000
IMPORTS AT PRINCIPAL PORTS			
Boston.....	1,100,000	45,336,000	72,637,000
Philadelphia....	310,000	30,400,000	49,607,000
New York.....	1,100,000	27,997,000	45,959,000
Total.....	2,510,000	103,733,000	168,203,000

No Buying Interest in Burlaps

Calcutta cables were on the downward side for the first three days of the week, and the New York market was easier and quiet by mid-week. Interest in

ENKA EXPERIMENTS

help to answer two vital questions

for converters, cutters, weavers and knitters

WHAT FABRICS TO MAKE?..to meet and anticipate fashion trends and buying habits. HOW TO MAKE THOSE FABRICS?..so that quality and constant markets are assured.

These are the two questions which face the industry constantly. It is not enough to answer them once. They must be answered again and again.

With the aid of practical merchandising men and expert technicians, American Enka is developing many new constructions, new finishes and new fabrics. Some are entirely of Enka yarn. Others are in combination with cotton, silk or wool. Each was created for a purpose—relating the fabrics to their ultimate use. It is entirely possible that a private showing of these new ideas may answer the two questions which will determine your policies for the immediate future.

See these fabrics. Talk with a representative of American Enka.

American Enka Yarn now available in 75, 100, 120, 150, 200 and 300 denier, standard or multi-filaments, in skeins or on cones.

AMERICAN ENKA CORPORATION
200 Madison Avenue, New York City,
CANNON MILLS, Sole Agents,
Philadelphia—New York—Providence
Chicago—Chattanooga—Kannapolis

futures was very light, and only a few scattered lots of goods were sold for spot and afloat.

The 8 oz. 40s for spot and two weeks arrival were 4.65c; July shipment, 4.70c. The 10½ oz. 40s for spot and two weeks were 5.90c.; July shipment, 6.00c.

Increase in U. S. Foreign Sales of Lace Goods

Shipments of laces, embroideries and window curtains from the United Sates during 1929 were valued at $216,000, a slight increase as compared with the $213,000 worth forwarded in 1928. Shipments to Canada, the largest outlet for American-made laces, embroideries, and curtains, rose from $68,000 in 1928 to $91,000 in 1929, while exports to the Philippine Islands fell to $40,000.

Cuba's increasing use of this type of goods is evidenced by an increase in American shipments to that country from $8,000 in 1928 to $12,000 in 1929. Shipments to France, the United Kingdom, and Australia were small but increased slightly compared with 1928 exports.

Cotton Yarn Interest Subsides

Raw Material Decline Again Scares Buyers

PHILADELPHIA.

ACTION of the market during the last week corroborates the statement made previously in these columns that carded weaving yarns were the weakest of the entire list and due to prevalence of stocks were likely to remain so for some time. During the last week there has been no change in carded knitting yarns nor in combed, but carded weaving counts have continued their downward course without interruption.

Sales for immediate delivery have been made on basis of 24c. for fair grade of 20s-2 warps, at least half cent under the lower range a week ago; 30s-2 are in the same relative position. Other counts of weaving yarns are half cent lower than last week and sales have been less numerous and volume smaller. There was a slight improvement after the upturn in cotton but the subsequent decline in both cotton and yarns has caused it to disappear.

PREMIUM FOR FUTURE DELIVERY

There have been several sales for fall delivery but in these cases manufacturers have been compelled to pay higher prices than for prompt shipment, spinners feeling that by fall higher prices will be obtainable. A sale of this character called for 80,000 lb. of 16s-2 tubes at 25c. and same amount of 20s-2 tubes at 26c., the yarn being slightly above ordinary grade. When a chance is presented to sell yarn for nearby shipment then spinners and dealers will cut prices in most instances.

Knitting yarns present a much firmer appearance and little change has been made in them, one house reporting that they refused an offer for 200,000 lb. of carded yarn made on basis of 23c. for 10s, calling for a yarn slightly above ordinary and delivery running until end of the year. Not only are prices of knitting yarns holding well but specifications on contracts are in better shape than reported by sellers of weaving counts, large quantities of which are unspecified by makers for weeks back.

There has been less knitting yarn sold and specified this week than last, the improvement of last week not carrying over. Manufacturers have been scared out of the market by new drop in cotton and it will be necessary to develop new confidence among them before a change for better is again apparent. Buyers have reported that they have been offered 10s cones at 22½c. or even lower but no representative spinner has admitted quoting this low.

COMBED YARNS FAIRLY STEADY

Combed yarns, single and ply, have been quiet with little change being apparent in prices, spinners continuing to quote on basis of cotton futures. There is an absence of demand from processors and spinners catering to this trade would probably accept offers at lower prices if substantial quantities were involved.

Mercerizers are running on curtailed schedules and, although they have a fair to large volume of business on books, manufacturers are not giving specifications. Hosiery mills are running out of orders and they will not specify on these contracts until new business is in their hands. Lack of business among mercerizers is causing dullness among two-ply combed spinners, more severe than has been noted this year heretofore.

Although there is an almost total absence of interest in yarns, the market presents a sold-out appearance, spinners having reduced prices to such a low level in proportion with raw material that there has been little change in spinning margins this week notwithstanding small demand. Manufacturers have their mind on the cotton crop and fear from this angle is uppermost in their minds.

●

NEW YORK.—Little in the way of important business was reported in this week's carded yarn trading. Last week there was an increase in purchasing, but this only lasted for about two days, after which business slipped back into the rut once again.

Prices show no recovery, but, on the other hand, no important weakness has cropped out. The resistance among spinners towards accepting current bids is increasing, and sellers state that several firm offers have been turned down. It was also reported that a few more spinners have shut down and that others contemplate similar action when present orders run out. Dealers stated again that, unless there is a radical decline in cotton, it is probable that yarn prices will show only fractional declines.

The export end is very quiet, and those interested in this branch said that they had heard nothing from South American markets for several weeks. Insulators have made small commitments to take care of business in hand, but are not stocking any yarn. Conditions are draggy in the knitting trade as well as among the weavers and plush manufacturers.

There was a bit of interest last week in combed numbers, but prices were poor. According to reports, Sak cotton has advanced 4c. due to the tariff, but lack of yarn business has made it impossible for spinners to raise prices more than 2c. When present stocks of staple cotton held by spinners are used up, certain factors look for a sharp rise in Sak descriptions, perhaps as much as 10c. per lb.

●

BOSTON.—The cotton yarn market for month to date is less satisfactory in point of volume than the corresponding weeks in June. Several consuming plants experiencing a dull market have deemed it advisable to close down at this time for inventory taking and plant repairs. A reflection of this has been noticeable of late in dealer circles through the slackening in the usual demand for small lots. Business on 15,000 to 25,000 pound orders, however, is showing a little improvement. This business is coming from consumers who usually talk 50,000 to 100,000 pounds. Buyers in these concerns feel that prices are low and accordingly are not taking on too great a risk in contracting for a portion of their requirements.

Spinners are making efforts to secure prices showing at least cost of production, but it is difficult to see how they can have much success on the present market. Many spinners have curtailed production or have closed their mills for a limited period and others have taken advantage of the dullness to repair or adjust any machinery needing attention, all of which eliminates considerable poundage from the market. Despite unsatisfactory conditions an optimistic spirit is found among the larger buyers, who apparently believe that a reaction is about due.

In working out current changes in their quotations, yarn dealers evidently are adhering as closely as possible to the asking prices of their spinners. On the

CHARDONIZE
in
Half Hose
has the Qualities Men like

• • •

THE dull luster finish, so popular in women's hosiery, is now available in the men's line. More and more manufacturers are planning to use Chardonize yarn to meet the dull luster demand. They find that Chardonize successfully supplies this newest style requirement. Samples of the new half hose are unusually attractive. They have a remarkable "lisle-like" appearance. In the new designs, Chardonize makes up into just the sort of hosiery styles men want.

You will find a constant and growing market for all merchandise made of Chardonize. Alert manufacturers who are using this yarn are securing fine results. You too, will be pleased with the new fashion and grace that it will give to your hosiery line.

Samples of Chardonize yarn, and further information regarding it, will be promptly sent you upon request.

CHARDONIZE

(PRONOUNCED SHARDONEEZE)

A TUBIZE CHATILLON PRODUCT *Brand YARN*

Chardonize is a soft, fine yarn of unusual beauty with a permanent subdued lustrous appearance resembling silk.

TUBIZE CHATILLON CORPORATION . . . . TWO PARK AVENUE, NEW YORK CITY

***Plants:* Hopewell, Va., Rome, Ga.**

Manufacturers of Synthetic Yarns of Distinction — Acetate Process — Nitro-Cellulose Process — Viscose Process

other hand, the buyer is almost completely in control of the prices of cotton yarn and buyers' bids come nearer to determining yarn rates than anything else. The average buyer, according to report, is bidding for small, prompt-delivery lots of carded yarn on the basis of about 10½ cents a pound for cotton.

Worsted Yarns Not Moving

Lower Prices No Incentive To Buyers

PHILALELPHIA.

TRADING in worsted yarns is practically at a standstill. Manufacturers are refusing to buy yarns in advance of goods orders, and, as they have mostly completed orders for summer merchandise, they are waiting fall and winter business. Their stocks are small and resumption of orders will be quickly felt by spinners who are in need of business to keep them running on their present reduced schedules.

Worsted spinners are more fortunate than cotton in regard to margins, holding their prices on a more equitable basis in reference to the raw material than cotton spinners do. Based on present prices of wool and current worsted-yarn quotations, there is a fair margin for spinners, but the difficulty is that the small amount of business passing is usually at prices considerably under the published list.

A large sale of 1-18s, 64s, dyed, by a bathing-suit manufacturer was reported at a figure 10c. under the quotation named by other spinners of this count; yet there are small sales of other knitting counts reported at the market level. Instances where spinners must have immediate orders on which to run have resulted in cutting prices.

TOO MANY BATHING SUITS?

Bathing-suit manufacturers have completed their 1930 season and are sampling for next year's lines, most of which will trend toward the use of finer grades of wool than this year; but they are not willing to buy large amounts in view of stocks of unsold bathing-suits that are on hand. These stocks will mean manufacturers will be more conservative in making goods for 1931 than they were this year, and this will be reflected in less future buying of bathing-suit yarns.

At least six of the leading men's wear manufacturers in this section are fairly busy on duplicate orders for the present season's goods, and one large concern is running nights to fill last-minute orders from customers. While this may last for several weeks, it is not expected to go further; attention being given to opening of next season lines which will take place in September.

There has been no buying by these mills in anticipation of next season goods orders, and spinners believe that buying will be of a most conservative nature, with mills waiting until goods orders are in hand before placing yarn business. Opening of tropicals this week gave an idea of the price trend of men's wear.

Spinners give credit to the wool marketing policy of the Government for holding their market on a more stable basis, believing that if purchase had not been made by the Federal agency, the market for yarns would have suffered along with the raw material.

During the last two weeks there has been no change in prices made by representative spinners, and price-cutting by certain spinners needing immediate orders has not increased, showing that the market as a whole is in as good shape as could be expected under the circumstances.

Statistics compiled by the Wool Institute, Inc., show that June was the poorest month, with the exception of April, of any month this year in respect to deliveries of English spun knitting yarns, their figures representing 80% of the total spindles of the country in the English knitting classification.

Compared with the same month in 1929 June deliveries of this type yarn were 29.6% smaller; for the first six months of 1930 deliveries were slightly more than 17% under last year.

French system spinners are in an even worse position compared with last year, reports from 68% of the total French spindles in United States showing that June this year was 23½% smaller in regard to deliveries than same month of last year. First six months show loss of almost 20% as compared with same period in 1929.

◆Little Demand for Spun Silk

THE spun-silk market is quiet, and spinners do not look for any real business to develop before mid-August. Current orders come mostly from the broadsilk trade, and these contracts are few. The broadsilk weavers regard spun silk with unusual favor, however, due to the exceptional success of shantungs and other spun-silk fabrics during the spring and early summer months. Shantungs went so well, as contrasted with other broadsilk lines, that in numerous instances they were the most profitable line carried by the mills.

Spinners report scant buying by the woolen and worsted trades. The tone of the spun-silk market is firm and prices hold steady. Production has slackened and stocks on hand are moderate.

◆Throwsters More Confident for Fall

THROWN silk continues quiet. There was a strengthening of crepe prices, thanks to some demand at that end, but the market as a whole was slow. The call for crepe and grenadine twist yarns is bringing some business—not as much as the throwsters would like, however; mill men say that the current movement of the twist numbers is considerably behind what they had expected.

The tone of the market is better. Throwsters are encouraged by the increased confidence manifest among producers of tram silk hosiery. There is some future business being placed on trams, a few orders calling for December delivery. The quantity of this demand is negligible, but it has strengthened the hope of thrown silk mills regarding August. Factors now count on mid-August to set a turning-point toward improved demand.

Thrown yarn mills are still operating on a reduced schedule as a result of which there are only moderate stocks on hand.

Rayon Yarn Prices Cut

Viscose, DuPont, Tubize-Chatillon Reduce—Silk Competition Blamed

THE long-awaited cut in rayon yarn prices arrived this week, when the Viscose Co. announced a reduction of from 20c. to 27c. on all numbers. This reduction, which was made public July 22, effective that date, was followed by cuts announced by the DuPont Rayon Corp., and the Tubize-Chatillon Corp.; two smaller firms discontinued price lists. The cut had been rumored for some months, and was traceable partly to the drop in raw silk prices and partly to persistent sub rosa price cutting in the rayon industry. The revision cuts the price of 150 denier, 24 filament first quality, which is the chief unit from point of sales, from $1.15 to 95c. per lb., a drop of 20c. The other changes average 20c. per lb.; the cut in finer deniers, however, is higher, 75 denier,

R&H
CHEMICALS

For Textiles

CAUSTIC POTASH 88/92%

Neu—Stassfurt Brand Fused—Broken—Ground

CARBONATE POTASH
- CALCINED -

80/85%—96/98%

PERMANGANATE POTASH U.S.P.

A PARTIAL LIST OF R & H TEXTILE CHEMICALS

Albone 25 Vol.
Albone C Electrolytic
Alcohol
Ammonia
Chlorine Liquid
Copper Sulphate
Epsom Salts
Formaldehyde U.S.P.
Formic Acid
Glauber's Salt
Hydrogen Peroxide
Napthalene
Oxalic Acid
Potash, Bichromate
Sodium Acetate
Sodium Bichromate
Sodium Perborate
Sodium Phosphate
Sodium Prussiate
Sodium Peroxide
Sodium Stannate
Sodium Sulphide
Sodium Sulpho Cyanide
Solozone
Trisodium Phosphate
Zinc Chloride
Zinc Sulphate
Zinc Dust

Solvents for Cleaning and Spotting Out

Chloroform, Technical
Carbontetrachloride
Tetrachlorethane
Trichlorethylene

Solvent 260

The ROESSLER & HASSLACHER CHEMICAL CO.

10 East 40th Street, New York, N. Y.

30 filament dull luster, being reduced 27c., and 75 denier, 30 filament bright being cut 25c.

VISCOSE STATEMENT

Samuel A. Salvage, president of the Viscose Co., announced the reduction, stating that the cut was needed to keep the proper price relation between raw silk and rayon.

Mr. Salvage's statement follows:

"Due to the lower price trend for the past few months in textiles, and particularly the recent sharp decline in silk, we have thought it advisable to bring the price of rayon down and thereby maintain the price parity which has in the past existed between the two fibers.

"While silk today is selling at a lower level than ever before, but at the same time is uncertain to continue so for any length of time, we have, in making this cut, taken this fact into consideration, and brought our prices to such a point as should be effective in answering any rumors regarding a further decline."

Trade reaction to the reduction was divided. Most of the larger producers see the step as inevitable, as a move toward solution of the price-cutting problem. The drop of raw silk to unparalleled low levels allowed for a proportionate drop in all silk goods, and brought silk down to competitive levels with rayon. With silk now on an upturn and the possibility that this improvement may continue, the question in the minds of the manufacturers is: Will a return of silk to normal levels, bring an upward revision of rayon prices? Rayon users were disposed to interpret Mr. Salvage's statement as intimating the possibility of such a development. At present, rayon yarn prices are down about as low as they can profitably go; indeed, producers who intend to follow Viscose lead and make the cut are hopeful that increased sales will justify increased output, thereby improving their position by reducing overhead. The issue is one of volume business, meaning that the smaller companies, those unable to make up the difference through big-scale selling, may feel the pinch.

It is clear that the cut was aimed as much at price-cutting among producers as at silk competition. Certain companies lost substantially by trying to hold to list prices in a market where underselling was prevalent. According to several factors, the trade is determined to bring about stability, even if this means selling temporarily at prices below the cost of production.

While most producers favor the reduction, certain factors expressed dissatisfaction, pointing out that the cut will serve temporarily to increase the hesitancy among manufacturers. The rayon market has been quiet for some weeks, business being largely on a price basis.

The minimum of business is being placed, and such orders as drift in, are for spot shipment. Inquiry in the market prior to the price cut revealed that many customers were dissatisfied with the uncertain price situation prevailing and had made urgent requests to their yarn sources to clear the air, either by reducing prices or specifically stating that no action would be taken for a given time. The buyers objected more to the uncertainty than to the prices.

Meanwhile, the improved condition of the rayon underwear market has encouraged these knitters to continue buying yarn. Demand from this group, plus a fair call from hosiery manufacturers constituted the only real selling activity of the week. Rayon producers were encouraged by the fact that the underwear trade is turning toward 100 denier. The bulk of yarn used is still 150, but numerous small orders for the finer sizes for underwear production were placed this week. The orders came from leading firms, and the rayon producers are hopeful that the smaller mills will soon follow.

◆Rayon Waste Surplus Declines

ALTHOUGH the rayon waste situation has changed little since last week, dealers note a gradual improvement during July. Demand for thread waste has caught up with production, and now has begun eating into the surplus. This encourages the trade to hope that even at the present slow rate of buying, the surplus of thread waste will be cleared by the end of August. Rayon waste has been badly hit in the past six months, and only the limited output of yarn prevented the building up of a great stock. As it was, a considerable surplus accumulated, and devices for moving this and thus bringing about a firming of prices has been the trade's chief concern this summer. With the surplus thread waste declining, the outlook now is considerably better. The top market is still slow, and no real improvement is expected here for another month; it is believed, however, that the end of August will bring a call sufficient to clear the surplus at that end within a few weeks. Prices are unchanged.

◆Cotton Wastes Continue Depressed

BOSTON.

THE cotton waste trade had another unsatisfactory time of it last week. Aggregate volume of business was small, and prices were easy all along the line. The best comber could be bought at 11c. and the best peeler strip at 10c. There was not much doing in the wastes and byproducts of foreign cottons. It is not unlikely that the high duty of 7c. per lb. on Egyptian cotton will result in some of the tire mills utilizing as a substitute medium peeler lengths, and, in this case, the output of Sak. and Egyptian comber will be curtailed very considerably. Mattress stocks were active. Consumers were convinced apparently that it would require a slump in cotton to drive good picker and fly any lower than the prices at which they are now selling.

Although demand for cotton waste has been relatively small month by month for spinning qualities, it may be regarded as a favorable feature that the general output of wastes has also been declining steadily for the year to date, and, judging by the slump of cotton in June, the output of wastes must have been restricted.

Most of the wastes are on the low price level of the year. There has been no sharp break at any time, but all types of spinnable wastes have fallen steadily with cotton, and on present market it is possible to buy peeler comber at 83%, or practically under 11c. per lb. Peeler strips are moderately active on a 70 to 73% basis; Egyptian strips can be purchased on the same basis, and the comber at 10c. There seems to be a good, substantial supply of Upland strips, with the market quoted from 8 to 8½c. In threads for machining, white slasher and spooler can be bought for 8c. and single spooler for 9c., with colored threads available from 6½ to 7c.

In the Manchester English market both cotton and wastes are about 25% lower than they were six months ago, demand during the period having slowed down steadily.

Cotton Trade Awaiting Report

Drouth in Central Belt Fails to Stimulate Buying

PHILADELPHIA.

TRADING in the cotton market during the last week has been dominated by a feeling that the crop had reached a critical point in its development. After nearly two months of drouth and high temperatures in central and western sections of the belt, the feeling has been that deterioration would become serious if there were not a change in the weather, but that up to the middle of this week, no injury had been done which might not be repaired by good timely rains. The action of the market has reflected nervousness over the situation, but there has been more disposition to await the outcome than to trade aggressively on the day-to-day news. The recovery of the previous week which carried the active

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Sulfogene Carbon MCF

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TO meet the demand for colors used in dyeing fabrics for the rubberizing trade, the du Pont Company offers a line of sulphur colors of very low copper content.

Extensive work by our research and manufacturing departments has proved it practically impossible to produce colors on a large scale that will be absolutely free from copper.

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STANDARD ANALYSIS: Each lot of Sulfogene Copper Free Colors has been analyzed and in no case does a delivery contain more than .01% of copper. It is possible to use up to 20% of these colors and still keep within the limits established by the Standards Committee of the Rubberizing Industry.

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months some 60 to 80 points above the low levels of a week ago last Monday, had eased the technical position of the market to some extent and this, combined with forecasts for showers, promoted partial reactions. Up to the close of Wednesday, however, there had been no adequate relief from drouth in the central and western belts and the market was fairly steady in tone around the 12¾ cent level for the new October contracts.

It seems hardly possible that the crop has escaped any damage whatever from the inadequate rainfall and excessive temperatures recently reported, particularly in Mississippi and Arkansas. These are important states in the making of the crop and any really serious deterioration in their crops would force revisions of ideas as to the probable coming supply. At the same time recent rains improved conditions in the eastern belt, while it seems that the high temperatures which preceded them, failed to kill off all the boll weevil, as infestation is still reported heavy in some sections of the Carolinas. Moreover, irregular stands have been complained of in various parts of the belt and last week reports of shedding or wilting were becoming a little more frequent. Good rains now would doubtless relieve immediate anxiety as to the crop and render a general crop scare unlikely until after the middle of August. Meanwhile, there is uncertainty as to the showing of the end-July crop reports and the Government's report which is scheduled for publication on August 8th, giving the condition and indicated yield as of August 1st. The showing of these reports depends upon weather conditions for the next three or four days as the crop is at a point where either rains or continued drouth would make a considerable impression on ideas of the condition.

Except for the increased seriousness of the central belt drouth, there does not seem to have been much change in the general condition of affairs during the week. So far as indicated by current reports, very little business is being done either in spot cotton or in new crop shipments. It is reported that the cooperative organization in Texas is receiving some cotton in its seasonal pools, on which it is advancing $50 per bale. So far as can be learned the cooperatives are making little if any effort to market their holdings of old crop cotton, but in the absence of demand the basis is nominal.

●

Boston.—The cotton situation from the mill consuming standpoint is practically unchanged from a week ago. Curtailment continues on a drastic scale and some estimate the New Bedford mills running at hardly more than 30 per cent of normal capacity on the average. Because of this condition, mills are not in the least interested in forward shipment cotton. Liquidation of mill owned cotton virtually controlled the spot cotton market in New England so far as medium staple lengths were concerned. Mill cotton was not offered in particularly large quantity, but there was enough of it to fill current demands. Since it was available at least 25 points under the prompt shipment quotations from the south, most of the dealing centered in spots rather than shipment. When the offerings of mill cotton ceased, the market firmed up to the level of prompt shipment quotations from the south.

Interest seems to center chiefly on inch and one-eighth cotton, with some call for inch and three-sixteenths as well as inch and five-thirty-seconds.

There is no quotable change in basis. The average of advances in official Southern quotations, covering middling ⅞ inch is 47 points on the week against advances of 43 and 46 points, respectively, on October and December, New York, the principal basing months. Medium grade uppers can be had around 22 cents to 23 cents and medium grade Sakel, of good character is quoted on the spot around 30 cents to 31 cents. Offerings have been made of off-charactered Sakel, around 28 cents to 29 cents. Pima is also inactive.

●

Memphis, Tenn., July 21—The cotton shipping trade here is decidedly more cheerful, due probably to the booking of some orders for deferred delivery, although most shippers insist that actual business is extremely limited. It is known that inquiry has gradually increased during the last two or three weeks, but heretofore differences in price ideas stood in the way of important results. It may be that bookings during the week were not large, but it at least seems certain that shippers feel that price differences are being ironed out and that the new season will be entered upon with some orders in hand. While usually hedged about with reservations, expressions of optimism are not exceptional.

Spot prices, nominally at least, have followed the advance in futures and this advance has contributed in part to the better feeling; since the advance in futures is attributable in the main to fears for the crop, because of continued drouth in the central belt, it is felt that the advance would not hold in the event of relief within the near future. The central belt is entering the third month of drouth without any signs of relief in sight. Inquiry for deferred shipment is confined mostly to the medium and better grade inch to 1 1/16" cottons. Some business has been put throught at fixed prices but very little, if any, on call. Staples are neglected.

Early Crop Movement Expected

While the crop averages a week or more late, due to an unusually large percentage of late planting, which made poor progress in dry areas, an early movement is expected. Early cotton continues to make fair progress, is fruiting freely and the weather has been conducive to early maturity. Demand for immediate or nearby shipment is small, even for between-seasons; most of it comes from southern mills and centers on 1 1/16" to 1 1/32" cottons in the medium and better grades and on low grades of approved types.

The weather during the week was mostly unfavorable.

Wool and Substitutes Firm

Wools too Near Cost to Permit Slump—Wool Rags Protected

MILL buying on Summer Street continues on a restricted basis, although a few houses are in receipt of inquiries which may lead to business. There is a very firm undertone to the market, and it would seem as though at least 90% of the trade believe that the next major move will be upward. Fine wools are being bought by consumers on the basis that has been in force for the past six or eight weeks—original wools and French combing wools at 70 to 73c., and staple wools up to 75c. Wools suitable for woolen manufacture are in small demand even though prices on scoured combing wools have been shaded recently. A few sales of foreign wools occur in a very steady basis, owing to the limited amount of spot material in bond.

The wool trade is anticipating better business for the balance of the year. Wool consumption for the first half of the year showed a decided decrease compared with the similar period of last year, and, as stocks of fabrics are apparently below normal, a substantial expansion is likely to be seen when the goods market realizes that wools are not likely to move any lower. The London market continues easy, but it would require a very marked slump in values to affect the position of domestic wools.

World production and consumption are just about balanced, and there is little reason to doubt the ability of the consuming public to absorb the available supplies. Wool is on a very reasonable level of values; if anything, it is too cheap. This opinion is supported by the improvement in the general statistical position and also by the fact that,

WHAT DO WE MEAN by "CONTROL"?

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almost alone among commodities, wool presents an appearance of stability.

Wools Close to Cost

Wools in the foreign markets are too close to cost to allow any extended or permanent decline from current levels, and in the United States, although prices are substantially higher, the tariff left out of account, the higher cost of producing wool under American standards of living has to be given proper consideration.

The National Wool Marketing Corp., which set out with an objective of 100 million lb., has gone measurably beyond that quantity. In other years, under the old system of wool cooperative handling, about 20 million lb. were signed up by cooperation.

Stabler Position in Wool Rags

The wool-rag market is firmer, not because of any particular increase of demand for graded stocks, but chiefly because graders have come to realize that supplies of graded rags, likely to be in demand in the near future, are very small, and for the further reason that there is practically no prospect of good packing mixed rags breaking to any lower level.

Further declines in the foreign markets are being watched closely, but it will require more than a moderate decline in Dewsbury to allow American houses to import old materials.

Thread wastes are as interesting as anything, chiefly because of the close relation between materials of domestic and foreign production. Something of a desire to unload is seen on the part of holders of materials imported before the new tariff went into effect. Better prices would no doubt be obtainable were the market in anything like a normal condition, but at this time the demand for thread wastes is so slim that the foreign and domestic stocks are in strong competition for the limited business available.

No Abundance of Choice Noils

The noil market was dull last week. Mill buying was for small amounts, and the total turnover was considered small. The thin consuming market has no influence in bringing about a lower level of values although, it occurred occasionally that a dealer, in order to close a sale, would make a slight concession in price. Some traders state that there is a distinct scarcity of choice fine noils made from Cape and Australian wools, and that the best type of domestic fine noil is not available in any large quantity: Average fine noils of domestic wool are in substantial abundance.

Raw Silk Advances

Slight Gain Encourages Market—Buying Still Hesitant

THE firming trend of raw silk continues, and though the market is still in a state of "nerves," importers are considerably encouraged. The slow rise of prices is accompanied by the usual fluctuations, and manufacturers are not thoroughly convinced that the gains will be held. Both knitters and weavers are placing business, but orders are small and mostly nearby. Futures made an advance but this was temporary; spots were in a better position and have held moderately steady at levels 5 to 8c. higher throughout the week.

Market Improves

On the whole, the market is improving. The chief handicap is the lack of confidence at the consuming end. Buyers still remember their losses incurred during the spring, and it will take some weeks of maintained progress to persuade them to future coverage of any size. There is a leaning away from speculation; much of the current buying is for immediate needs, and importers believe that if the gains can be held until about Aug. 10, the consuming industries will respond with more confident commitments.

The situation in Japan is quiet; there are numerous reports of curtailed production but no details are procurable. The number of filatures in operation there is understood to have been reduced considerably.

On the Silk Exchange

The week opened with futures irregular, but a rally followed which sent prices up 1 to 5c. News of Japanese curtailment brought a further firming. Futures weakened next day and some of the early gain was lost; futures strengthened slightly just before closing. Prices were steadier and a healthy tone prevailed Friday which carried through the week-end, bringing an advance in spot quotations. This gain was held, despite a let-up in buying, until Monday. Tuesday brought an easing, but traders were fairly well satisfied with the week.

◆Bathing-Suit Styles Forecast

WITH bathing-suit demand definitely on the wane, this division of the knitted outerwear industry is now busy planning the openings of the 1931 bathing-suit lines. Reorders for bathing-suits for spot shipment come in sporadically, but this business decreases each day. Producers are eminently satisfied with the season now closing, as indeed they have every reason to be. In one of the weakest periods in business for the past decade, the bathing-suit industry enjoyed a splendid turnover. The end of the season brought its usual price cuts, but these came too late to have any serious adverse effect, and merely served the useful purpose of clearing the shelves of producers who wanted to get busy on new lines. The prospects for 1931 are considered good, though it is too early to speak with any assurance on that point.

Men's Suits to be Briefer

The new bathing-suit styles are expected to continue their stress upon sunback, and men's suits will be more skeleton than they were this year. The trade has noticed the success achieved this year by one number which was nothing more than trunks and suspenders and it is understood that numerous mills have planned some numbers along that line.

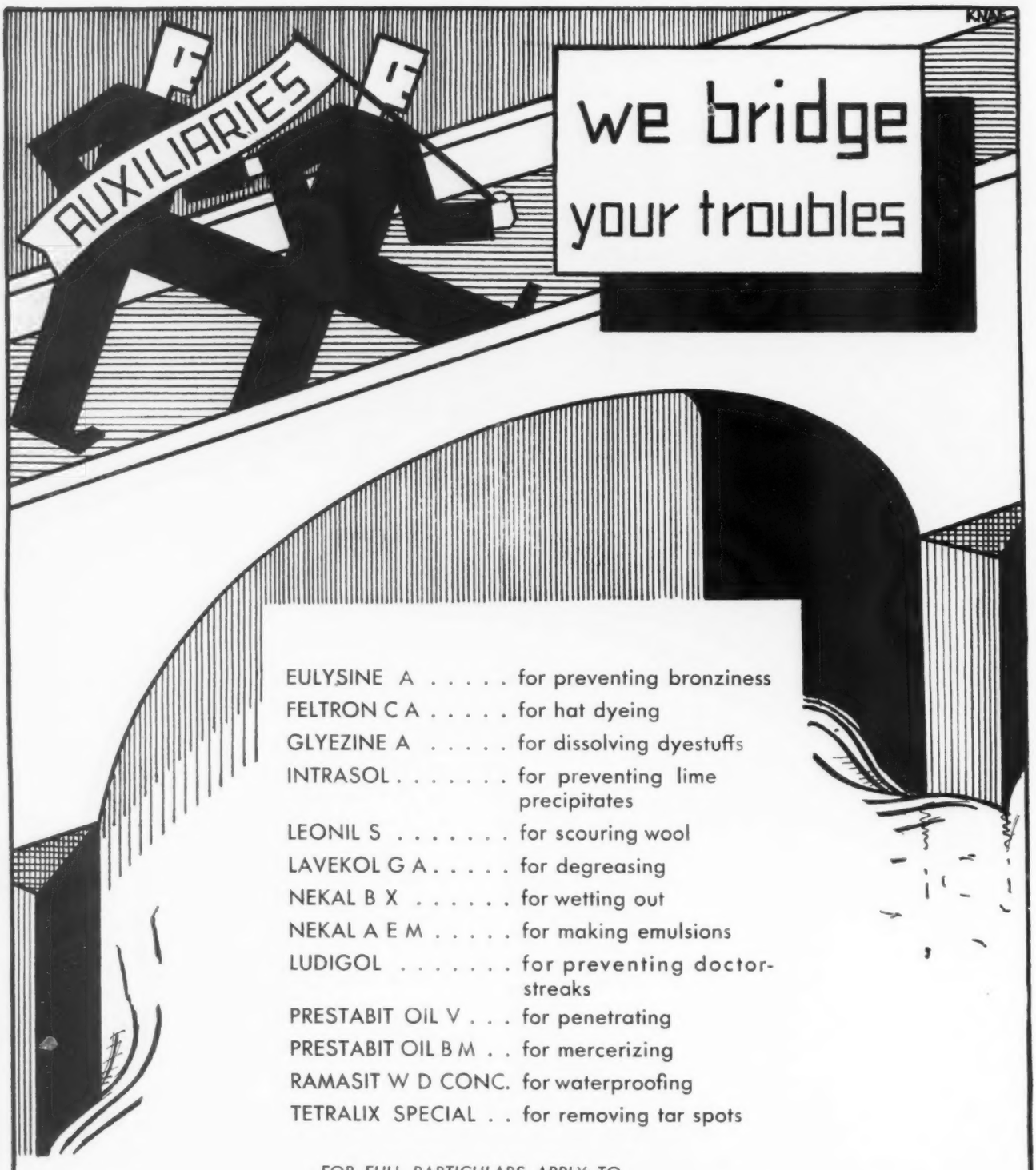
One feature of the coming season's showings will be the emphasis on two-piece suits for women. These will be in contrasting but not jazzy color effects. During the last few weeks of the current season, the demand for women's two-piece suits took a surprising jump, and this has served the designers as a cue for next year.

At the sweater end, heavy-weights have improved, but the demand is still sluggish. Light-weights continue to suffer from the polo shirt competition. Rayon polo manufacture has slackened, reflecting an easing up of demand; a few weeks probably will see the development of some demand for the heavier-weight polos. Some mills already have shown and are taking orders for worsted polos. The prospect for this line is dubious, as the prices of worsted sweaters has gone down, placing them in close competition with worsted polos.

1931 Underwear to Open Late

Current Demand Poor Due to Heat Spell in East

THERE is little buying being done at any end of the knitted underwear industry. The torrid weather that marked the opening of the week killed whatever slight interest jobbers and retailers might have felt. The "dog days" are here, so far as sales are concerned. A few reorders for light-weight cottons and rayons were placed, and some mills reported considerable



EULYSINE A . . . . . for preventing bronziness
FELTRON C A . . . . . for hat dyeing
GLYEZINE A . . . . . for dissolving dyestuffs
INTRASOL . . . . . for preventing lime precipitates
LEONIL S . . . . . for scouring wool
LAVEKOL G A . . . . . for degreasing
NEKAL B X . . . . . for wetting out
NEKAL A E M . . . . . for making emulsions
LUDIGOL . . . . . for preventing doctor-streaks
PRESTABIT OIL V . . . for penetrating
PRESTABIT OIL B M . . for mercerizing
RAMASIT W D CONC. for waterproofing
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activity in their rayon lines. For the most part, however, it is an in-between period.

Heavyweight underwear is still far behind normal and even the approach of August has failed to stimulate commitments. Buyers are exceptionally hesitant, and when they do buy fall goods the orders will probably be smaller than usual. Jobbers and retailers look for a drop in heavyweight underwear prices either in the fall or at the January openings.

Prices are now uncertain. Most of the big mills hold to list, but heavies can be procured at bargain rates. It is not likely that any general cut will develop between now and fall. The heavyweight mills are in a comparatively firm position, despite the backward season as they have curtailed output to the point where there is very little surplus stock on hand.

◆Light Hosiery Call Stresses Price

HOSIERY has failed to rally, and there is little prospect of any early improvement. Full-fashioned goods are weak at all ends. There is no real desire to buy at lists and there are no established prices. A considerable amount of business is being placed, and usually it is marked by much haggling; mills have difficulty in getting anything approaching list prices. The larger producers, as usual, are in the firmest position, and some of these report satisfactory sales. Seamless is in a somewhat better position than full-fashioned; the price tone is steadier, and, though here, too, orders are hesitant, buyers are less insistent upon striking a bargain.

All half-hose buying is on a price basis, and current demand leans to numbers that will retail at 20 and 25c. Mills find difficulty in getting their 35c. hose to move. Rayons and cottons in fancy patterns are favored. Women's and children's anklets continue active.

◆Improved Tone in Cotton Goods

A REVIVAL of demand caused an improved tone in the cotton-goods market last week. This continued into the current week, although buying was slightly less, due to a break in cotton and extremely hot weather. The heat wave caused a sudden call for sheer fabrics which went at bargain prices. In other divisions of the market, buyers and sellers alike picked a cool spot and considered business in the abstract.

Print cloths were again the most noticeable item, although certain centers secured an increased amount of twill business at unchanged prices. Print cloth quotations were firmer, and advances were gained in several numbers. The 5.35 yd. 64x60s are selling at 5½c., with a few asking 5⅝c. The stronger holders are refusing business at this figure, and state that their present ideas are 6c. Buying is almost wholly confined to spot or nearby deliveries, with quantities running around 100,000 yd. Consumers have shown a desire to place contracts, but only a very few mills have been willing to accept later deliveries at present prices.

Manufacturers of 80 squares stated that they were unable to gain any price advance due to second hand sales last week at 7⅜c. These seemed to be well cleaned out now, and there is the hope that some advance may be made over the present 7¼c.

Chambrays and khaki prices have been revised since the recent action on denims. Sales have been stimulated and several centers tell of a marked improvement in the colored goods end.

American Opens Staples

Find Prices Lower Than Generally Expected

A GENERALLY quiet wool-goods market caused interest to be centered on the American Woolen opening of tropical worsteds, flannels, and men's staple suitings for spring 1931. Quotations are lower than expected, and represent a cut of 5 to 10%. Staples are 10 to 25c. per yd. under last fall, while tropicals show a decline of 17 to 33c. for a similar period.

Comparative prices of several key numbers are as follows:

Staples		Spring 1930	Fall 1930	Spring 1931
Wood Worsted	9613-1	$1.96	$1.81	$1.65
Washington	414-1	1.77	1.67	1.46
	3756	1.48	1.40	1.26
Fulton	3192	2.02	1.90	1.80
Shawsheen	8020	2.35	2.22	2.02

Tropicals		Spring 1930	Spring 1931
Ayer	6717	$1.46	$1.25
	6047	1.82	1.55
Wood	9404	1.57	1.31
	9407	1.75	1.48
Washington	130	2.03	1.81

Manufacturing economies and lower raw material prices are cited as the reason for the reduction. The new list is practically on a pre-war basis, taking tariff differences into account. Outsiders viewed these prices as marking the bottom for fabric quotations due to the basic strength in the wool market.

It is believed that the reduced prices will increase consumption, especially of the tropicals. There has been a certain amount of consumer resistance against paying present prices for clothing which can be worn for only a couple of months. Lower garment prices could easily speed public acceptance of strictly summer clothing.

Other developments in the men's wear end were lacking. Women's wear mills stated that a few of the leading dress houses were sampling worsted dress goods. Orders are scarce and are not expected until style opinions become more crystalized.

Broadsilk Call Stronger

Cantons, Sheers, Velvets All Are in Good Demand

BROADSILK demand both from the cutters and the retailers is stronger, and buyers show greater confidence in placing fall orders. A considerable amount of business is being placed; interest continues to center on canton crepes, and weavers believe these lines will be a big feature for several months. Sheers, metals, and velvets also register activity, though the real fall business on these lines has not yet developed. The recent rise in raw silk served to remove, partially at least, one of the chief handicaps to sales. Cutters and retailers were hesitant about advance buying, believing that silk might go further down and bring a sympathetic decline in broadgoods prices. Cloth prices are moderately firm, at present. In the cantons, the chief demand is for plains selling for $1.75.

Some canton crepes are now being delivered, but the volume shipments will not begin for some weeks. The call is for browns, greens, wines and for a wide range of blue shades.

Velvets have improved, and there is a steady though light call for the same shades that are favored in cantons, with the addition that black is big in velvets. Flat voiles and georgettes, especially weighted georgettes, are moving actively; the call is almost exclusively for plains. Metals are selling, but there is no volume demand; light-weight metals are preferred. Shantungs have fallen off, and are not expected to pick up until the demand for Palm Beach merchandise develops.

The larger mills are devoting most of their looms to the output of plain cantons. Stocks are gradually being built up for fall delivery, which should begin about the third week of August.

QUOTATIONS

at close of business, July 23, 1930
Prices cover average qualities unless otherwise stated

Cotton Goods

	July 23	July 16	July 24 1929
PRINT CLOTHS			
27 -in., 64x60, 7.60	4½c.	4½c.	5½c.
38½-in., 64x60, 5.35	5½c.	5¾–5¾c.	7¾–7¼c.
39 -in., 68x72, 4.75	6¼–6¾c.	6¼–6¾c.	8¼c.
39 -in., 72x76, 4.25	7¼c.	7¾c.	9¾–9¾c.
39 -in., 80x80- 4.00	7¾c.	7¾c.	10¼c.
BROWN SHEETING			
36-in., 56x60, 4.00	6¾–7 c.	7 c.	8½c.
36-in., 48x48, 3 00	8 –8½c.	8¼–8¾c.	10¼–10¾c.
37-in., 48x48, 4.00	6¼–6¼c.	6¼c.	7¼c.
PAJAMA CHECKS			
36½-in., 72x80, 4.70	6¼–6¼c.	6¼–6¾c.	8¼c.
36½-in., 64x60, 5.75	5½c.	5¼–5¾c.	7¼–7¼c.
MISCELLANEOUS			
Drills, 37-in., 3 yd	8½c.	8½c.	10¼c.
Denims, 2.20	12¼c.	12¼c.	17c.
Tickings, 8 oz	17¼–17¼c.	17¼–17¼c.	22–23½c.
Standard prints	8 c.	8 c.	9 c.
Eastern staple ginghams, 27-in	10c.	10c.	10½c.

Cotton Waste

Peeler comber	10½—11
Peeler stripe	9½—10
Sak. comber	10 —10½
Choice willowed fly	5 — 6
Choice willowed picker	4 — 5
Sak. strips	12 — 13
Linters (mill run)	3 — 3½
White spooler (single)	8 — 9

Cotton Yarn

(Carded yarn quotations are nominal)

CARDED (Average Quality)
Double carded 2c.–4c. higher, according to quality

SINGLE SKEINS OR TUBES (Warp Twist)

4s to 8s	$0.22	20s	$0.24 –.24½
10s	–.22½	24s	.26½–.27
12s	–.23	26s	.27½–.28
14s	–.23½	30s	–.29½
16s	.23½–.24	40s ex. qual.	.41 –.43

TWO-PLY SKEINS AND TUBES

8s-2	$0.22½	26s-2	$0.28
10s-2	–.23	30s-2	.29½–.30
12s-2	–.23½	36s-2	.35 –.36
14s-2	–.24	40s-2	.37 –.38
16s-2	.24 –.24½	40s-2 hi blk	.41 –.43
20s-2	.24½–.25	50s-2	.46 –.47
24s-2	–.27	60s-2	.54 –.55

SINGLE WARP

10s	$0.22½	24s	$0.26½
12s	–.23	26s	–.27½
14s	–.23½	30s	–.30
16s	.23½–.24	40s ex. qual.	.42 –.43
20s	.24 –.24½		

TWO-PLY WARPS

8s-2	$0.22½–.23	24s-2	$0.27 –.27½
10s-2	.23	26s-2	.28 –.28½
12s-2	.23½–.24	30s-2	–.30
14s-2	.24 –.24½	40s-2 ordin.	–.38
16s-2	.24½–.25	50s-2	–.47
20s-2	.25	60s-2	–.55

8s-3 and 4-ply skeins and tubes; tinged, 19-20; white, 22-23; waste 18-18½

HOSIERY CONES (Frame Spun)

8s	$0.23	22s	$0.26½–.27
10s	.23 –.23½	24s	.27½–.28
12s	.23½–.24	26s	.28½–.29
14s	.24 –.24½	30s tying	–.30½
16s	.24½–.25	30s reg	.31½–.32
18s	.25 –.25½	30s ex. qual.	.34 –.34½
20s	.25½–.26	40s	.38 –.39

COMBED PEELER—(Average Quality)

TWO-PLY—(Knitting Twist) Cones

20s-2	$0.40 –.41	60s-2	$0.59 – .60
30s-2	.44 –.45	70s-2	.69 – .70
36s-2	.45 –.46	80s-2	– .81
40s-2	.46 –.47	90s-2	.95 –1.00
50s-2	.52 –.53	100s-2	1.18 –1.20

WARPS, SKEINS AND CONES

TWO-PLY—(Warp Twist)

20s-2	$0.41 –.42	60s-2	$0.60 – .61
30s-2	.45 –.46	70s-2	.70 – .71
36s-2	.46 –.47	80s-2	– .82
40s-2	.47 –.48	90s-2	1.00 –1.05
50s-2	.53 –.54	100s-2	1.20 –1.25

SINGLES

12s	$0.34½	30s	$0.44
14s	–.35	38s	.46 –.47
16s	–.35½	40s	.47½–.48
18s	–.36	50s	–.52
20s	–.37	60s	–.60
24s	–.39½	70s	–.70
28s	–.42½	80s	.80 –.81

MERCERIZED CONES—(Combed, Ungassed)

26s-2	$0.55 –.56	90s-2	$1.35 –1.37
30s-2	.57 –.58	100s-2	1.65 –1.67
36s-2	.60 –.61	120s-2	2.05 –2.08
40s-2	.63 –.64	30s	– .75
45s-2	.65 –.67	40s	– .80
50s-2	.67 –.69	50s	– .85
60s-2	.76 –.78	60s	– .90
70s-2	.88 –.90	70s	–1.05
80s-2	1.00 –1.05	80s	–1 25

Cotton Prices and Statistics

COTTON STATISTICAL DATA

(Fluctuations of Futures)

	Closed July 17	For Week—High	For Week—Low	Closed July 23	Net Change
July	12.97	13.43	12.69	12.69	—.28
August	13.00	13.45	12.80	12.80	—.20
September	13.00	13.45	12.90	12.90	—.10
October	13.13	13.58	12.99	13.02	—.11
November	13.22	13.66	13.09	13.09	—.13
December	13.33	13.72	13.12	13.17	—.16
January	13.34	13.72	13.20	13.20	—.14
February	13.22	13.64	13.06	13.06	—.16
March	13.33	13.75	13.12	13.16	—.17
April	13.40	13.82	13.24	13.24	—.16
May	13.49	13.91	13.30	13.33	—.16

SPOT FLUCTUATIONS FOR WEEK

(Middling)

	New York	New Orleans	Liverpool
Friday, July 18	13.40	13.09	7.68
Saturday, July 19	13.65	13.20	7.87
Monday, July 21	13.15	12.90	7.83
Tuesday, July 22	13.15	12.90	7.67
Wednesday, July 23	12.90	12.69	7.73
Thursday, July 24	12.65	12.44	7.58

SPOT FLUCTUATIONS AND STOCKS

Markets	July 16	July 23	Sales	Stocks This Week	Stocks Last Year
Galveston	12.60	12.60	592	195,179	89,955
New Orleans	12.69	12.69	228	334,403	86,747
Mobile	12.30	12.25	....	10,285	11,652
Savannah	12.02	12.09	....	104,309	21,862
Norfolk	13.00	12.88	1,076	49,306	28,356
New York	13.15	12.90	....	237,336	150,353
Augusta	12.50	12.50	821	49,029	34,029
Memphis	12.00	12.00	3,227	155,305	53,867
St. Louis	11.90	12.25	....	7,723	9,830
Houston	12.50	12.45	2,708	535,970	177,749
Dallas	12.15	12.15	1,683	10,721	2,501

BASIS MIDDLING

	Saturday, July 19	Saturday, July 12
10 markets average	12.85	12.39
Memphis	12.55	12.00

PREMIUM STAPLES

First Sales from Factors Tables at Memphis

Grade Strict Middling	Prices Nominal
1⅛-in	15.35-15.55c.
1 3/16-in	16.50-16.80c.
1¼-in	21.50-21.80c.

CURRENT SALES

	For Week	Prev. Week	Week Before
Memphis total	2,806	3,144	2,002
F.o.b. included in total	2,347	2,864	1,202
10 markets	10,781	6,268	7,365

MEMPHIS RECEIPTS, SHIPMENTS, ETC.

	For Week	Last Year	Year Before
Net receipts	897	1,296	1,079
Gross receipts	5,722	4,780	5,200
Total since Aug. 1, net	943,417	862,608	668,008
Shipments	14,397	10,417	15,065
Total since Aug. 1	1,873,156	1,836,952	1,488,027
Total stock	159,607	56,865	89,785
Decrease for week	8,575	5,640	9,863
Unsold stock in hands of Memphis factors	27,550	4,851	.....
Increase for week	396	*13	.....

*Decrease

AVERAGE PRICE JULY-AUG. SHIPMENT HARD WESTERN COTTON

F. o. b. New England

	Middling	St. Middling
1 1/32 in	15½–15¼c.	16 –16¼c.
1⅛ in	16 –16¼c.	16½–17 c.
1 3/16 in	17⅜–18¼c.	19 –19¼c.
1¼ in	22½–23½c.	24 –25 c.

Basis on New York. New December, 13.30

DIFFERENCES ON AND OFF MIDDLING WHITE GRADES

	Dallas	Memphis	Montgomery	Augusta	Average
M. F	1.05†	1.00†	1.00†	1.00†	1.00†
S. G. M	.90†	.85†	.90†	.88†	.86†
G. M	.75†	.75†	.75†	.75†	.72†
S. M	.50†	.50†	.50†	.50†	.50†
S. L. M	.75*	.65*	.65*	.75*	.71*
L. M	1.75*	1.75*	1.50*	2.00*	1.73*
S. G. O.**	3.00*	2.75*	2.50*	3.25*	2.88*
G. O	3.00*	2.75*	2.50*	3.25*	3.93*

YELLOW TINGED

G. M	.50*	.25*	.50*	.50*	.55*
S. M	1.00*	.75*	1.00*	1.00*	1.05*
M.**	1.75*	1.25*	1.50*	1.50*	1.65*
S. L. M	2.50*	1.75*	2.25*	2.25*	2.32*
L. M.**	3.50*	2.25*	3.00*	3.00*	3.22*

YELLOW STAINED

G. M	1.50*	1.75*	1.50*	1.50*	1.55*
S. M.**	2.25*	2.50*	2.50*	2.50*	2.40*
M.**	3.00*	3.00*	3.50*	3.50*	3.20

BLUE STAINED

M. G.**	1.75*	1.50*	1.75*	1.75*	1.70*
S. M.**	2.25*	2.25*	2.75*	2.75*	2.45*
M.**	3.00*	2.75*	3.75*	3.75*	3.23*

**Grades not deliverable on contract. †On Middling *Off Middling.

EGYPTIAN COTTON

Alexandria Exchange, July 23		Change
July Sak	28.00	.....
August uppers	16.00	—0.18

JULY–AUGUST SHIPMENT c. i. f. BOSTON

(Tariff not included)	(Prices Nominal)
Fully good fair Sak	30.50
Fully good fair to good Uppers	18.50

(By Anderson, Clayton & Co.)

Wool

OHIO, PENNSYLVANIA AND WEST VIRGINIA
(IN GREASE)

Fine delne..	$0.30 –$0.31	¾ blood.....	$0.29 –$0.30
Fine clthg..	.23 – .24	½ blood.....	.29 – .30
¼ blood.....	.29 – .30		

TEXAS AND CALIFORNIA
(CLEAN BASIS)

Texas, 12 months	$0.73 –$0.75
California, Northern	.65 – .68

PULLED—EASTERN (CLEAN BASIS)

AA.....	$0.75 –$0.78	B-Super...	$0.57 –$0.60
A-Super....	.63 – .68	C-Super...	.53 – .55

MONTANA, IDAHO AND WYOMING
(CLEAN BASIS)

Staple fine	$0.75 –$0.78
Staple ¾ bld.	.70 – .73
Fine and fine medium	.70 – .72
¾ blood	.60 – .63
½ blood	.55 – .58

MOHAIR—DOMESTIC

Best Carding	$0.38 –$0.40
Best combing	.53 – .55

MOHAIR FOREIGN (IN BOND)

Turkey fair, average	$0.28 –$0.30
Cape firsts	.28 – .30

FOREIGN CLOTHING AND COMBING
(CLEAN BASIS IN BOND)

Australia:	
70s	$0.65 –$0.70
64s	.53 – .55
58s-60s	.46 – .48

(IN GREASE)

Montevideo:	
58-60s	$0.25 –$0.26
56s	.25 – .26
50s	.23 – .24
Buenos Aires:	
4s, 40-44s	$0.22 –$0.23
5s, 36-40s	.20 – .21

FOREIGN CARPET (GREASE BASIS IN BOND)
SCOURED

Aleppo	$0.30 –$0.31
China: Combing No. 1	.16 – .17
China Filling Fleece	.14 – .15
Szechuen ass't	.15
Cordova	.15 – .16
Scotch black face	.20 – .21
East India: Kandahar	.23 – .24
Vican'r	.27 – .28
Joria	.27 – 29

Worsted Yarns

ENGLISH SYSTEM WEAVING

2-20s, 36s	$0.92½–$0.95
2-24s, 40s	1.02½– 1.05
2-26s, 44s	1.10 – 1.12½
2-28s, 46s	1.15 – 1.17½
2-30s, 48s	1.20 – 1.22½
2-32s, 50s	1.25 – 1.27½

(Single yarns 5c. less than above)

2-36s, 58s	$1.35 –$1.40
2-40s, 60s	1.45 – 1.47½
2-40s, 64s	1.50 – 1.52½
2-50s, 66s	1.70 – 1.75
2-60s, 70s	2.15 – 2.20

ENGLISH SYSTEM KNITTING

2-20s, 44s in oil	$0.95
2-20s, 50s in oil	$1.05 – 1.07½
2-20s, 56s in oil	1.15 – 1.20
2-20s, 60s in oil	1.32½– 1.35
2-20s, 64s in oil	1.40 – 1.42½
1-15s, 46s dyed	1.15 – 1.17½
1-15s, 48s dyed	1.17½
1-15s, 50s dyed	1.20 – 1.22½

(Oil yarns 17½c. less)

FRENCH SYSTEM

1-20s, 58s	$1.20 –$1.22½
1-20s, 60s	1.25 – 1.27½
1-18s, 64s, Dyed	1.52½– 1.55
1-26s, 64s	1.27½– 1.30
1-30s, 60s, Warp	1.42½– 1.47½
1-30s, 64s, Warp	1.47½– 1.52½
2-30s, 64s, Fancy mixes	1.70 – 1.72½
2-40s, 64s, Zephyrs	1.60 – 1.62½
1-50s, 66s	1.62½– 1.65
2-50s, 66s	1.80 – 1.82½
1-60s, 70s	2.05 – 2.07½
2-60s, 70s	2.20 – 2.25

FRENCH SPUN MERINO WHITE

1-30s, 50-50-58s on cops	$1.05 –$1.07½
1-40s, 50-50-60s on cops	1.20 – 1.25
1-40s, 50-50-64s on cops	1.22½– 1.25
1-40s, 50-50-64s Australian cops	1.30 – 1.35

Underwear mixes, 3c. additional.
Solid color, 35c. additional.

◆

Tops and Noils

TOPS—BOSTON

Fine (64-66s)	$0.95 –$0.97
Half-blood (60-62s)	.88 – .90
High ¾ blood (58s)	.83 – .85
Aver. ¾ blood (56s)	.80 – .83
Low ¾ blood	.73 – .78
High ½ blood (50s)	.70 – .72
46s S. A. and N. Z.	.65 – 66
44s S. A and N. Z.	.62 – .65
40s S. A and N. Z.	.58 – .60

TOPS—BRADFORD, ENG. (JULY 17)

Fine (70s)	31 d	¾ bld. (56s)	20d
Fine (64s)	27½d	½ bld. (50s)	17d
¾ bld. (60s)	25½d	Cross-bred (46s)	15d
¾ bld. low (58s)	22½d		

NOILS—BOSTON

Fine	$0.57–$0.60	High ¼ bld..	$0.44–$0.47
Half-bld....	.53– .55	Low noils...	.40– .42
Aver. ¾ bld..	.45– .48	Medium colored...	.40– .42
Fine colored	.46– .48		

Wool Substitutes

WOOL WASTE

Lap, fine white	$0.83 –$0.88
Lap, fine colored	.58 – .63
Hard ends, fine white	63 – .68
Hard ends, ¼ blood white	.45 – .48
Hard ends, fine colored	.30 – .33
Hard ends, medium colored	.23 – .28
Card, fine White	.35 – .38
Burr, fine Carbonizing	.38 – .43

OLD WOOLEN RAGS (GRADED FOR MFRS.)

Merinos, Coarse Light	$0.06 –$0.07
Merinos, Fine Dark	.04½– .05
Merinos, Fine Light	.14 – .14½
Serges, Blue	.07½– .08
Serges, Black	07 – .08
Serges, Red	.11 – .11½
Knit, White	.29 – 30
Knit, Red	.15 – 16
Knit, Light Hoods	.14 – .15
Worsted, Light	.05½– .06
Worsted, Blue	.07½– .08
Worsted, Black	07½– .08

Silk Yarns

THROWN SILK (60 day basis)

	Nominal
Japan organzine, 2 thd. grand XX in skeins	$4.30
Japan organzine, 2 thd. sp. crack in skeins	4.15
Japan crepe, 3 thd. grand XX in bobbins	4.50
Japan crepe, 3 thd. sp. crack on bobbins	4.20
Japan crepe, 4 thd. crack on bobbins	3.95
Canton crepe, 3 & 4 thd. ns. 14/16 on bobbins	2.70
Tussah tram, 2 end on cops	2.00
Hosiery tram, 3 thd. Japan XXX	4.90
Hosiery tram, 4 thd. Japan, selec. gd. XX	4.40
Hosiery tram, sp. crack XX	3.65
Hosiery tram, crack XX	3.55
Hosiery tram, XX	3.30

SPUN SILK YARNS—(Terms: net 30)

40/2	$3.65	60/2	$4.00
50/2	3.85	62/1	2.80

Raw Silk

(60 day basis)
Prices Nominal

Japan filature, grand XX, 13/15	$3.65
Japan filature, sp. crack XX, 13/15	3.40
Japan filature, crack XX, 13/15	3.25
Japan filature, XX, 13/15	3.10
Japan filature, best X, 13/15	3.00
Canton filature, new style, 14/16	1.75
Canton filature, new style, 20/22	1.60
Tussah filature, 8 cocoon	1.65
Grand XX (Yellow) 20/22	3.00
Grand XX (White) 20/22	3.05
Sp. crack (Yellow) 20/22	2.95
Sp. crack (White) 20/22	3.00
Crack (Yellow) 20/22	2.90
Crack (White) 20/22	2.95

NATIONAL RAW SILK EXCHANGE

	Close July 16	For the Week High	For the Week Low	Close July 22	Net Cnge.
July	2.85	2.97	2.79	2.90	+.05
August	2.80	2.97	2.78	2.85	+.05
September	2.80	2.97	2.78	2.86	+.06
October	2.80	2.98	2.78	2.87	+.07
November	2.80	2.99	2.78	2.86	+.06
December	2.80	2.97	2.78	2.86	+.06
January	2.80	3.00	2.78	2.88	+.08
February	2.80	2.98	2.80	2.86	+.06

July 16 to July 22 — Total contracts, 871. Total number of bales, 8,710. Total approximate value $3,048,500.

Domestic Rayon

VISCOSE PROCESS

Denier	Filament	First	Second
50	14	$2.15	$1.95
75	18	1.60	1.50
75	30	1.70	1.60
100	18	1.25	1.15
100	40	1.30	1.20
125	36	1.20	1.10
150	24	.95	.90
150	36	1.00	.95
150	60	1.15	1.10
150	75–90	1.20	1.15
170	24–27	.95	.90
170	60	1.15	1.10
200	30	.90	.85
200	35	.90	.85
200	75–80	1.10	1.05
300	44	.78	.75
450	54	.78	.75
600	72–96	.78	.75
900	100–144	.78	.75

NITRO-CELLULOSE PROCESS

Denier	First Qual.	Second Qual.	Denier	First Qual.	Second Qual.
75	1.60	1.50	150	.95	.90
100	1.25	1.15	175	.95	.90
125	$1.20	$1.10			

CUPRAMMONIUM PROCESS

Denier	Filament	Price	Denier	Filament	Price
15	25	$4.15	40	30	$3.15
25	25	3.65	52	30	3.00
30	25	3.40			

(Due to diversified offerings prices for higher denier are not listed.)

ACETATE PROCESS

Denier	Price	Denier	Price
45	$2.75	120	$1.90
55	2.55	150	1.60–1.85
75	2.25–2.70	200	1.55
100	2.00–2.45	300	1.50

Rayon Waste

Prices Nominal

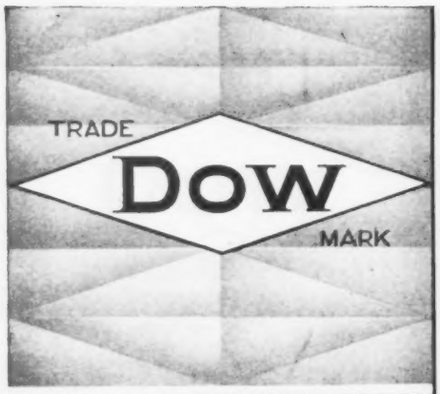
Open bleached waste	–$0.18
Open unbleached waste	–.15
Bleached thread waste (mfs.)	– .12
Bleached thread waste (misc.)	.11– .12
Colored thread waste	.08– .10
Colored clips	–.07½

CONVERTED RAYON WASTE

Bleached tops	–$0.49
Unbleached tops	–.43
Bleached noils	– .18
Bleached garnets	– .18
Unbleached garnets	– .16
Colored garnets	– .14

Silk Waste

Kibisso Kikai Grand XX	$0.85
Kibisso Kikai Triple Extra	.92
Frison Grand Double	.90
Pierced Cocoons	1.12



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Magnesium Chloride
Calcium Chloride, Flake and Solid
Carbon Bisulphide 99.9%

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Midland Vat Blue Dyes
Synthetic Indigo 20% Paste
Synthetic Indigo Powder
Ciba Dyes

THE DOW CHEMICAL COMPANY—MIDLAND, MICHIGAN

Southern Mill Securities

(A. M. Law & Co., Spartanburg)

	Bid	Asked
Abbeville Cotton Mills	..	60
Anderson Cotton Mills	69	73
Arcade Cotton Mills	..	60
Arcadia Mills	..	240
Arcadia Mills, pfd	96	100
Arkwright Mills	..	60
Augusta Factory, Ga	..	20
Avondale Mills, Ala	..	1025
Beaumont Mfg. Co	250	300
Beaumont Mfg. Co. 7% pfd	100	102
Belton Mills	..	25
Belton Mills, pfd	..	78
Bibb Mfg. Co	98	101
Bibb Mfg. Co. 6% pfd	99	102
Brandon Corp., A	..	45
Brandon Corp., B	..	7
Brandon Corp., pfd	80	85
Calhoun Mills	88	95
Chadwick-Hoskins Co. (par, $25)	9	12
Chesnee Mills	..	65
Chiquola Mfg. Co	250	260
Chiquola Mfg. Co., pfd	88	92
Clifton Mfg. Co	95	98
Clinton Cotton Mills	235	250
Columbus Mfg. Co., Ga	80	90
Cowpens Mills	..	30
D. E. Converse Co	90	95
Dallas Mfg. Co., Ala	..	65
Darlington Mfg. Co	40	50
Drayton Mills	118	..
Dunean Mills	120	125
Dunean Mills, pfd	100	102
Eagle & Phenix Mills, Ga	..	65
Easley Cotton Mills, pfd	..	47
Enterprise Mfg. Co., Ga	..	100
Fairforest Finishing Co., serial notes	98	100
Florence Mills	45	50
Florence Mills, pfd	98	102
Gaffney Mfg. Co	..	29
Gainesville Cotton Mills, Ga	145	155
Glenwood Mills	85	95
Gluck Mills	70	75
Gossett Mills	..	65
Graniteville Mfg. Co	..	100
Greenwood Cotton Mills	400	..
Grendel Mills, pfd. (par, $50)	45	48
Hamrick Mills	..	100
Hartsville Cotton Mills	130	140
Hunter Mfg. & Com. Co., pfd	85	88
Industrial Cotton Mills Co., pfd	..	30
Inman Mills	115	125
Inman Mills, pfd	100	..
Judson Mills, A, pfd	99	103
Judson Mills, B, pfd	95	98
King, John P. Mfg. Co., Ga	80	90
Lancaster Cotton Mills	250	270
Laurens Cotton Mills	..	120
Limestone Cotton Mills	..	100
Lydia Cotton Mills, serial notes	99	101
Marion Mfg. Co., N. C	..	113
Marlboro Mills	..	15
Mills Mill, pfd	95	99
Mollohon Mfg. Co., pfd	97	100
Monarch Mills	110	115
Musgrove Cotton Mills	30	35
Newberry Cotton Mills	105	111
Ninety-Six Mills	400	..
Norris Cotton Mills	..	45
Orr Cotton Mills	..	60
Orr Cotton Mills, pfd	..	83
Pacolet Mfg. Co	..	140
Pacolet Mfg. Co., pfd	97	100
Panola Cotton Mills, Class A, pfd. (par, $60)	57	60
Pickens Cotton Mills	105	115
Piedmont Mfg. Co	96	100
Piedmont Print Works (no par)	15	20
Piedmont Print Works, pfd	60	70
Poe, F. W. Mfg. Co	24	29
Riverside & Dan River Mills	11	12
Riverside & Dan River Mills, 6% pfd	73	78
Saxon Mills	..	70
Sibley Mfg. Co., Ga	50	60
Southern Bleachery	16	20
Southern Bleachery, Pfd	80	85
Southern Bleachery, serial notes	95	100
Southern Franklin Process	19	22
Southern Franklin Process, pfd	98	101
Southern Worsted Corp., pfd	88	92
Spartan Mills	..	145
Spencer Corp., serial notes	98	100
Union-Buffalo Mills	..	46
Union-Buffalo Mills, 1st pfd	87	90
Union-Buffalo Mills, 2nd pfd	44	46
Victor-Monaghan Co	68	70
Victor-Monaghan Co., pfd	112	117
Wallace Mfg. Co	..	105
Ware Shoals Mfg. Co	130	140
Whitney Mfg. Co	..	40
Woodside Cotton Mills Co	..	40
Woodside Cotton Mills Co., pfd	..	42
Yarns Corp. of America, gold bonds	99	101

Textiles on N. Y. Exchanges

The following shows the movements of the leading textile stocks listed on the New York Stock Exchange and Curb for the week ended July 23:

	High	Low	Last Sale	Net Change
Adams Millis	27⅜	26½	27	.....
American Woolen	11	9⅜	11	+ 1⅛
American Woolen, pfd.	29½	27	29¼	+ 3⅛
*Assoc. Rayon, pfd.	52¼	45⅜	47	— 5⅛
Belding-Hemingway	4⅛	4	4⅛	+ ⅛
Botany Mills, A	3	3	3	.....
Cannon Mills	23½	22	22½	— ⅛
Century Ribbon	5½	5¼	5½	— ⅛
Collins & Aikman	24½	21	23½	+ 2
Consolidated Textile	1	⅞	1	.....
*Fabrics Finishing	3¼	3	3¼	— ⅛
Gotham Hosiery	12	11½	12	.....
Industrial Rayon	98	91	91	— 3¾
Kayser, Julius	25½	24⅜	24⅜	— ⅛
Mallinson	10⅜	10	10	— 1⅛
Mohawk Carpet	20	18½	18½	— ⅛
Pacific Mills	21½	20½	20½	— 2⅛
*Pepperell	85½	80½	80¼	— 5¼
Real Silk Hosiery	42¼	40	41½	+ ⅞
*Tubize Chat. B	8	8	8	— ⅛

*Listed on Curb.

Fall River Mill Stocks

(G. M. Haffards & Co., Fall River)

	Bid	Asked
Algonquin Printing Co	320	325
American Linen Co	..	..
Barnard Mfg. Co	8	..
Berkshire (com.)	..	15
Berkshire (pfd.)	..	68
Bourne Mills	..	10
Border City Mfg. Co	..	5
Charlton Mills	..	65
Cornell Mills	..	10
Davol Mills	..	5
Davis Mills	..	12
Flint Mills	18	..
King Philip Mills	..	..
Laurel Lake Mills (com.)	..	8
Lincoln Mfg. Co	..	12
Luther Mfg. Co	..	..
Merchants Mfg. Co	27	..
Narragansett Mills	..	10
Parker Mills, com	..	..
Pilgrim Mills	..	70
Richard Borden Mfg. Co	2	4
Sagamore Mfg. Co	..	65
Shove Mills	4	8
Stafford Mills	..	1
Stevens Mfg. Co	..	35
Union Cotton Mfg. Co	24	..
Wampanoag Mills	..	..
Weetamoe Mills	..	1

N. Carolina Mill Stocks

(R. S. Dickson & Co., Charlotte, N. C.)

	Bid	Ask
Acme Spinning Co	65	75
American Yarn and Processing Co	..	75
Chadwick-Hoskins Co. (Par. $25)	8	11
Chadwick-Hoskins Co., 8%, Pfd	98	100½
China Grove Cotton Mills	98	102
Climax Spinning Co	60	68
Clover Mills	..	25
Converse D. E. Co	88	95
Crescent Spinning Co	54	62
Dixon Mills	90	100
Durham Hosiery, 6%, Pfd	41	50
Eagle Yarn Mills	59	66
Efird Mfg. Co	70	81
Erwin Cotton Mills	..	120
Erwin Cotton Mills Co., 6%, Pfd	90	97
Flint Mfg. Co	..	81
Flint Mfg. Co., 7%, Pfd	93	98
Globe Yarn Mills (N.C.)	..	20
Gray Mfg. Co	..	81
Hanes, P. H. Knitting Co	8	10½
Hanes, P. H. Knitting Co., 7%, Pfd.	96	101
Henrietta Mills, 7%, Pfd	43	55
Imperial Yarn Mills	..	60
Linford Mills	60	75
Locke Cotton Mills Co	48	68
Majestic Mfg. Co	100	135
Mansfield Mills	..	75
Mooresville Cotton Mills	5	7
Mooresville Cotton Mills, 7%, Prior Pfd	60	85
Myers Mills	..	73
Myrtle Mills	..	51
National Yarn Mill	51	61
Perfection Spinning Co	59	70
Ranlo Mfg. Co	..	115
Ranlo Mfg. Co., 7%, Pfd	..	100
Roanoke Mills	62	..
Roanoke Mills, 1st Pfd., 7½%	90	96
Roanoke Mills, 2nd Pfd., 8%	90	96
Rosemary Mfg. Co., Pfd., 7½%	98	..
Rowan Cotton Mills Co	69	80
Seminole Cotton Mills Co	..	75
Sterling Spinning Co	60	78
Stowe Spinning Co	60	71
Victory Yarn Mills Co	38	50
Ware Shoals Mfg. Co., 7%, Pfd	92	98
Winget Yarn Mills Co	40	50
Wiscassett Mills Co	160	180

New England Textile Stocks

Quotations at "Public Sale" are based on last sales at Boston Public Auctions and Boston Stock Exchange. Bid and Asked prices are latest quotations of leading Boston dealers.

	Public Sale	Bid	Asked
Am. Mfg. pfd	68	61	66
Amoskeag	12¼	12	13
Arlington	23¼	23	25
Associated Textile	36½	34	37
Bates	63	79	81
Berkshire Associates, com	15	12	14
Berkshire Associates, pfd	65	63	67
Bigelow-Sanford, com	61	63	65
Boott Mills	120½	110	115
Edwards	80¾	80	83
Esmond, pfd	102	100	102
Farr Alpaca	68	67	69
Hamilton Woolen	40	39	42
Hill	18	18	23
Indian Orchard	20½	20	25
Ludlow	138	136	140
Merrimack, com	50½	49	53
Nashua, com	32½	26	28
Nashua, pfd	77½	65	70
Naumkeag	88	83	88
Newmarket	25¾	20	25
Otis	49½	43	46
Pacific	23	22	24
Pepperell	85½	85	88
Plymouth Cordage	82	73	75
York	8¼	8	10

New Bedford Mill Stocks

(Sanford & Kelley, New Bedford)

	Bid	Asked
Acushnet Mill	14	16
Beacon Mfg., con	125	..
Beacon Mfg., pfd	85	87
Booth Mfg. Co., com	9	11
Booth Mfg. Co., pfd	30	..
Bristol Mfg. Co	27	29
City Mfg. Co	24	27
Dartmouth Mfg. Co., com	50	54
Dartmouth Mfg. Co., pfd	86	..
Fairhaven Mills, pfd	¼	¾
Gosnold Mill., com	15	..
Gosnold Mill, pfd	..	52
Grinnell Mfg. Co	23	26
Hathaway Mfg. Co	38	40
Holmes Mfg. Co., com	1	3
Holmes Mfg. Co., pfd	10	..
Kilburn Mill	36	39
Nashawena Mills	19½	21
N.B. Cotton Mills, pfd	12	15
Neild Mill	34	38
Nonquitt Mills	5	5¾
Pierce Mill	117	125
Potumska Mills	30½	32½
Quissett Mills, com	50	53
Soule Mill	55	..
Taber Mill	9½	10¾
Wamsutta Mills	13	14½
Whitman Mills	1	2½
Gosnold Mill Notes	87	..
Whitman Mills 6% Notes	38	..

* Ex-dividend.

Textile Calendar

Worsted Yarn Spinners' Annual Outing, Manufacturers' Country Club, Oreland, Pa., Sept. 24, 1930.

National Safety Congress, Textile Section, Annual Meeting, William Penn Hotel, Pittsburgh, Pa., Sept. 30-Oct. 1, 1930.

National Association of Cotton Manufacturers, Annual Meeting, Poland Springe, Me., Oct. 10-11, 1930.

Ninth Southern Textile Exposition, Textile Hall, Greenville, S. C., Oct. 20-25, 1930.

Textile Division, A.S.M.E., National Meeting, Poinsett Hotel, Greenville, S. C., Oct. 22, 1930.

Southern Textile Association, Semi-Annual Meeting, Poinsett Hotel, Greenville, S. C., Oct. 23, 1930.

Is *backwashing* necessary?

Backwashing to remove grease which should have been taken out in the scouring bowls is common practice in worsted mills.

A recent study of this situation by our Textile Research Department showed two things:

1. **The average scouring process does not clean the wool to a desirably low grease content nor with sufficient uniformity.**

2. **The chief, and perhaps the only *real* purpose of backwashing is to remove this residual grease and prepare uniformly clean fibers.**

But if wool is properly scoured in the first place, there is no need for additional cleansing in the backwash. Conditions in the scouring bowls can be adjusted to produce uniformly clean wool far more efficiently than in backwashing equipment.

Why not, then, take advantage of this fact? Why not adjust operating conditions carefully and use a soap which does its work so thoroughly that there is no need for backwashing?

Olive Olate Flakes successfully meets every demand for a soap for wool scouring. Its extremely low titre and flake form assure quick solubility and thorough, speedy rinsibility. And because it is a uniform product, your scouring results are uniform. With its help, you can control the percentage of residual grease within very narrow limits.

We shall be glad to give you further details about the efficiency and economy of Olive Olate.

Procter & Gamble

Cincinnati, Ohio

GOOD SOAP IS GOOD BUSINESS

Rheinauer Appoints Outerwear Assn. Committees

With various committees now formed and about to get under way on projects of importance to the knitted outerwear industry, the current year promises to be the most constructive in the National Knitted Outerwear Association's history, it was said this week by Executive Secretary Ellery B. Gordon. Mr. Gordon announced the membership of seven committees just appointed by Daniel Rheinauer, head of the New York Knitting Mills and president of the association. The committees follow:

Market Extension: Philip Frankel, Cleveland, O., chairman; Ralph Nauman, Wyckoff Knitting Mills, Brooklyn, N. Y.; Arthur Lichtenstein, Franklin Sweater Mills, Philadelphia, Pa.; Albert Beldoch, Marinette Knitting Mills, New York City; J. Finkelstein, Elgin Knitting Mills, Brooklyn, N. Y.; E. E. Schwartz, Green-Haas-Schwartz, Cleveland, O.; I. B. Davies, Bradley Knitting Co., Delavan, Wis.; L. F. Harder, High Rock Knitting Mills, Philmont, N. Y.; A. Paul Cohen, Suffolk Knitting Co., Lowell, Mass.; A. L. Stoumen, Durable Knitting Mills, Philadelphia.

Standard Sizes: O. W. Fishel, Standard Knitting Co., Cleveland, O., chairman; Dan Starr, Starr Knitting Mills, Brooklyn, N. Y.; D. F. Byrnes, Bradley Knitting Co., Delavan, Wis.; Martin Feld, Novelty Knitting Mills, Philadelphia, Pa.; L. C. Brine, Kingston Knitting Co., Cambridge, Mass.; M. S. Ely, Thermo Knitting Mills, New York City.

Finance: Dan Starr, Starr Knitting Mills, Brooklyn, N. Y., chairman; A. J. Farber, Friedman-Blau-Farber Co., Cleveland, O.; Harry M. Levy, Elbro Knitting Mills, Milwaukee, Wis.; A. Titelman, Arr-Tee Knitting Mills, Philadelphia, Pa.; A. Roy Hitchcock, Sterling Mills, Ilion, N. Y.; S. P. Kaplan, Priscilla Knitting Mills, Boston, Mass.; L. A. Castle, Jantzen Knitting Mills, Portland, Ore.

Machinery: Bernard Steuer, Tartan Knitwear Corp., Philadelphia, Pa., chairman; A. W. Johnson, National Knitting Co., Milwaukee, Wis.; William A. Keller, Keller Knitting Mills, Cleveland, O.; Arthur Reinthal, Bamberger-Reinthal Co., Cleveland, O.; Arthur Lowenthal, Max Lowenthal & Sons, Rochester, N. Y.

Tariff and Legislation: J. J. Phoenix, Bradley Knitting Co., Delavan, Wis.; George Jones, Gilbert Knitting Co., Little Falls, N. Y.; David Israel, Regal Knitting Co., New York City; Sol Reinthal, Bamberger-Reinthal Co., Cleveland, O.; Samuel Feuerstein, Malden Knitting Mills, Malden, Mass.; R. H. Lhowe, New York City.

Trade Relations: William Portner, Franklin Sweater Mills, Philadelphia, Pa., chairman; R. H. Wyner, Shawmut Woolen Mills, Stoughton, Mass.; Herbert Goulder, Federal Knitting Mills Co., Cleveland, O.; A. J. Friedlander, M. Friedlander Knitting Co., Milwaukee, Wis.; A. Egerer, S. Augstein & Co., College Point, L. I.

Yarns and Materials: John Sichel, Grushlaw & Sichel, Philadelphia, Pa.; Benjamin Friedlander, Bethlehem Knitting Mills, Brooklyn, N. Y.; L. C. Selden, Federal Knitting Mills, Cleveland, O.; H. H. Neuburger, Par Knitting Mills, Chicago; R. H. Lhowe, New York City.

N.A.C.M. Meeting Oct. 10-11

The dates of the fall meeting of the National Association of Cotton Manufacturers, to be held at Poland Spring, Me., have been set definitely for Oct. 10–11.

New Tubize Chatillon Prices

Tubize Chatillon Corp. on Thursday announced its new prices of nitrocellulose yarns, retroactive to July 22 as follows:

Tubize Lustrous

Denier	Filament	Skeins First	Skeins Second	Cones First
75	18	1.60	1.50	....
100	26	1.25	1.15	1.30
125	25	1.20	1.10	1.25
150	30	.95	.90	.98
175	30	.95	.90	...
	Chardonize (Dull Luster)			
100	26	1.30	1.20	1.35
125	25	1.23	1.13	1.28
150	30	1.03	.98	1.06

TERMS: 2% 30 days F.O.B. Hopewell, Virginia with minumum freight allowed to destionation.

New Viscose Prices

A comparative table of the old and the new Viscose Co. prices follows:

New Prices

Den.	Fil.	Bright 1st	Bright 2nd	1st	2nd
50	14	$2.15	$1.95	.....	.....
75	18	1.60	1.50	.....	.....
75	30	1.70	1.60	$1.73	$1.63
100	18	1.25	1.15	.....	.....
100	40	1.30	1.20	1.33	1.23
125	36	1.20	1.10	1.23	1.13
150	24	.95	.90	.98	.93
150	36	1.00	.95	1.03	.98
150	48	.....	.....	1.08	1.03
150	60	1.15	1.10	1.18	1.13
170	27	.95	.90	.98	.93
200	30	.90	.85	.....	.....
200	75	1.10	1.05	1.13	1.08
250	36	.85	.80	.....	.....
300	44	.78	.75	.81	.78
300	60	.78	.75	.81	.78
450	54	.78	.75	.....	.....
600	72	.78	.75	.....	.....
900	100	.78	.75	.....	.....
1,200	150	.78	.75	.....	.....

Old Prices

Den.	Fil.	Bright 1st	Bright 2nd	1st	2nd
50	14	$2.30	$2.00	$2.35	$2.05
75	18	1.85	1.65	1.90	1.70
75	30	1.95	1.75	2.00	1.80
100	18	1.45	1.35	1.50	1.40
100	40	1.50	1.40	1.55	1.45
125	36	1.30	1.20	1.35	1.25
150	24	1.15	1.10	1.20	1.15
150	36	1.20	1.15	1.25	1.20
150	48	1.20	1.15	1.25	1.20
150	60	1.35	1.30	1.40	1.35
170	27	1.15	1.10	1.20	1.15
200	30	1.10	1.05	1.15	1.10
200	75	1.30	1.25	1.35	1.30
250	36	1.10	1.05	1.15	1.10
300	44	1.00	.95	1.05	1.00
300	60	1.00	.95	1.05	1.00
450	54	1.00	.95	1.05	1.00
600	72	1.00	.95	1.05	1.00
900	100	1.00	.95	1.05	1.00
1,200	150	1.00	.95	1.05	1.00

Coning 50 to 125 denier, 1st and 2nd—5 cents per pound.

Coning 150 and coarser, 1st and 2nd—3 cents per pound.

New DuPont Prices

The DuPont Rayon Co. announced new prices on viscose process yarn as follows:

Denier	Filament	Twist	Skeins 1st Grade	Skeins 2nd Grade
Bright Yarns				
75	18	3	1.60	1.50
150	24	3	.95	.90
150	40	3	1.00	.95
170	30	3	.95	.90
200	35	3	.90	.85
300	50–60	3	.78	.75
450	72	3	.78	.75
600	96	3	.78	.75
900	144	3	.78	.75
Brigot Super Extra Yarns				
80	30	7	1.65	1.55
100	40	4–7	1.30	1.20
125	50	4–7	1.20	1.10
150	60	4–7	1.15	1.10
150	75–90	4–7	1.20	1.15
170	60	4	1.15	1.10
200	80	4	1.10	1.05
50	20	7	2.20	2.00
65	26	7	2.00	1.90

Lolustra Yarns

All Lolustra 3c. above Bright Cone or skein prices

Bright Super Extra Cones

Cones

All cones 150 Denier and over 3c. above skein prices.
All cones under 150 Denier 5c. above skein prices.

Delaware Rayon and New Bedford Discontinue Price Lists

Leon H. Ryan, general manager of Delaware Rayon Co., New Castle, Del., announced on Thursday that both the Delaware Rayon Co. and the New Bedford Rayon Co. have withdrawn their list prices for rayon yarn. He added that hereafter the companies will not publish their prices but that these may be had upon application.

Wiping Cloth Association Formed

The National Wiping Cloth Standardization Association is to be the name of the new organization designed to bring together all interests in the wiping cloth industry for the purpose of improving conditions and giving consumers the assurance of securing a guaranteed product from its members.

This new association, which will function as a division of the National Association of Waste Material Dealers, Inc., was organized at the Congress Hotel, Chicago, July 14 and 15.

C. H. Button to Represent Bliss, Fabyan

Charles H. Button has been appointed by Bliss, Fabyan & Co., Inc., as sales representative in the Philadelphia and Baltimore territories. He will serve these territories with the complete line of all the products merchandised through Bliss, Fabyan & Co., making his office at 809 Public Ledger Building, Philadelphia. Mr. Button has for the last 16 years owned and operated Button's Department Store in Frankford, a suburb of Philadelphia.

The Ellenboro (N. C.) Mfg. Co. has been added to the list of textile mills whose products are sold through Bliss, Fabyan & Co. Its output is confined entirely to the low-priced bedspread field and is non-conflicting with other bedspreads sold through Bliss, Fabyan.

These 3 great olive oil soaps

assure you excellent results with perfect safety

ARCTIC OLIVE OIL SOAP
(Bar, Bulk, Chips, or Powder)

This item is produced from 100% Olive Oil foots to yield a mild, neutral, creamy lather, and is also free rinsing soap because of its low titre. It can be used in any operation where neutral soap is required. Arctic Olive Oil Soap is especially valuable in washing silks, woolens, rayons and other fabric of a similar nature.

TEXOLIVE
(Bar, Bulk, Chips or Powder)

This is identical to Arctic Olive Oil Soap, except that it contains a small percentage of Coconut Oil, the Coconut Oil being added to produce additional lathering qualities.

TEXOLIVE KWIKSOLV

In spongy form under the name TEXOLIVE KWIKSOLV. (This product is without a peer and a most unique form of powdered Olive Oil Soap. Its solubility and direct action will surprise you. This contains 95% real soap.)

THE protection of expensive materials requires that you use a soap which is not only the purest and best—but which also *will not vary in quality.*

These three great Olive Oil Soaps offered by the Colgate-Palmolive-Peet Co. assure you of excellent results with perfect safety. It is proved by their unusual usage and acceptance that they are of unvarying high quality—the purest and the best olive oil soaps you can buy.

We invite you to test these products. Write for a trial run. Or ask for our representative to call.

COLGATE-PALMOLIVE-PEET CO.

919 N. Michigan Ave., Chicago, Ill.

NEW YORK KANSAS CITY MILWAUKEE SAN FRANCISCO JEFFERSONVILLE, IND.

5135

Holden Leonard & Co. Receive Melton Contract

PHILADELPHIA.—Bids to supply the Quartermaster Department, U. S. Army, with 66,166 yd., olive drab melton cloth were opened July 18, the following bids being received: Strong, Hewat & Co., Inc., $2.257; American Woolen Co., $2.19; Kent Mfg. Co., $2.31; Kay Woolen Mills, $2.18; Lacon Woolen Mills, $1.99; Clinton Woolen Mfg. Co., $2.195; Columbia Woolen Mills, $2.098, $2.134 and $2.11; Holden Leonard Co., $2.15; Dorset Woolen Co., $2.24.

Depot officials announce that award of this item has been made as follows: Lacon Woolen Mills, 33,000 yd., at $1.99, net and 33,166 yd., to Holden Leonard & Co., $2.15, less 3%, 10 days.

Golf Tournament of Chicago Yarn Circle

The annual golf tournament of the Chicago Yarn Men's Circle will be held at Nippersink Lodge, Genoa City, Wis., on Aug. 28. Guests are invited to arrive at the lodge the afternoon preceding the tournament where they will be provided with dinner and lodging for the night.

The annual golf affair is assuming an ever increasing importance in the minds of the knitters of the Middle West who are invited as guests.

At the annual election the following officers were elected for the ensuing year: president, C. Walter Seidel, Oscar Heineman Corp.; secretary, Charles Peffer, Cannon Mills; treasurer, George Hutchinson.

Announces Intermediate Grades for American-Egyptian Cotton

An order promulgating descriptive intermediate or half-grades for American-Egyptian cotton has been signed by Acting Secretary of Agriculture R. W. Dunlap.

The order provides that American-Egyptian cotton which in grade and/or color is between any two adjoining grades of the official standards for this variety shall be designated by the word "grade" and the grade number of the higher of two such grades, followed by the fraction "½."

Schreiber District Sales Head for Industrial Rayon

Appointment of O. A. Schreiber as district sales manager for Industrial Rayon Corp. for the states of Maryland, New York outside of New York City, and Pennsylvania, was announced this week. Mr. Schreiber will make his headquarters in the firm's Philadelphia office.

Leipzig Trade Fair in Fall

The historic Leipzig Trade Fair, comprising 8,500 exhibits from 24 countries, and attended by buyers from 72 countries, will be held from August 31 to September 5. American manufacturers will be represented at the fall fair by more than 100 important exhibits.

For 700 years the Leipzig Fair has regularly attracted merchants from many countries.

British Dyestuffs Production in 1929

Figures compiled by the Board of Trade show British production of dyestuffs in 1929 as 55,785,032 lb. which compares with 50,907,080 lb. in 1928. Largest section was again "vat colors including indigo" production of which was 14,683,701 lb. against 11,287,342. "Chrome colors and mordants including alizarine" totalled 9,614,734 against 9,594,737. Sulphur colors amounted to 6,864,243 against 6,580,362.

There was a marked increase in output of direct cotton colors which totalled 7,388,725 against 6,937,162. Cellulose acetate rayon colors together with miscellaneous colors totalled 5,394,294 against 4,974,903. Of the above totals blues amounted to 18,381,654 lb. against 14,990,937. Blacks, which totalled 11,306,745 against 11,360,500 was the only group to show a decrease during 1929 when compared with the previous year.

Dates for Cotton Grade and Staple Reports

The following dates for the issuance of reports on the grade and staple of cotton ginned during the coming season are announced by the Bureau of Agricultural Economics, United States Department of Agriculture:

Oct. 31, 1930, 1 p.m., for cotton ginned prior to Oct. 1, 1930;
Nov. 28, 1930, 1 p.m., for cotton ginned prior to Nov. 1, 1930;
Jan. 2, 1931, 1 p.m., for cotton ginned prior to Dec. 1, 1930;
Feb. 13, 1931, 1 p.m., for cotton ginned prior to Jan. 16, 1931;
April 17, 1931, 1 p.m., for total crop as it will be reported by the Bureau of the Census on or about March 20, 1931.

The date on which the report will be made of the grades and staples of cotton carried over on Aug. 1, 1930, will be announced later.

Tubize-Chatillon to Issue Trade Survey

Trade response to the first issue of *Textile Economist*, as issued on July 1 by the Tubize-Chatillon Corp., of New York City, has been so favorable that the company has decided to continue the publication of this résumé of economic conditions and also to increase the number of copies issued.

Throwsters Meet Aug. 9 at Sciota, Pa.

The sixth annual joint meeting of all sections of the Commission Throwsters' Division of the Silk Association of America, Inc., will take place Aug. 9, at Linden Court, Sciota, Pa., it is announced. Luncheon will be served at 2:00 p.m. eastern standard time, following which the day will be devoted to outdoor sports.

May Form Infants' Wear Group of Knitted Outerwear Assn.

Knitted infants' wear manufacturers who are members of the National Knitted Outerwear Association are considering plans for the formation of a division of their own within that association, it was learned in the trade this week. Leading infants' wear manufacturers have discussed the need of such a group, in view of the Senate resolution calling on the Tariff Commission to make an investigation of domestic and foreign costs of knitted infants' apparel which investigation may result in granting better tariff protection for the domestic producers. The manufacturers believe that they could do more constructive work in a group than they could singly, by collectively cooperating with the Commission in studying manufacturing costs.

Mellon Institute Issues Bibliographic List

The third annual supplement to Bibliographic Bulletin No. 2 of Mellon Institute of Industrial Research, Pittsburgh, Pa., has just been issued. This publication lists 7 bulletins, 50 research reports, 59 other papers, 16 domestic, and 15 foreign patents by members of the institute during the calendar year 1929. Complimentary copies of the third supplement, as well as of the preceding numbers of the series, will be sent to laboratory directors, librarians, science teachers, and institutional heads who request them.

N. C. Textile School Adds New Courses

The Textile School of North Carolina State College, in order to give its students a wider variety of instruction in the design, manufacture, finishing and distribution of textiles, has rearranged its curricula and added a number of new courses. Textile students now have the opportunity to pursue the general course in textile manufacturing or to major in yarn manufacturing, weaving and designing, or textile chemistry and dyeing.

Students who elect the general course in textile manufacturing, in addition to taking work in carding, spinning, knitting, weaving, designing, dyeing and cultural subjects, will have the privilege of selecting one of three options, industrial, marketing, or education.

The industrial option includes courses in heat engines, machine shop, electric equipment of mills and mill village sanitation.

The marketing option includes courses in marketing methods, advertising and sales management.

The educational option includes such courses as educational psychology, vocational education, visual aids, principles of teaching, vocational guidance and is designed to prepare young men who have a textile education, to teach in night schools and textile high schools.

Business News

American Aniline Investigating Foreign Processes

Textile specialties in Great Britain, France and Germany are being investigated by Walter Myers of the American Aniline & Extract Co., Philadelphia, Pa., who is touring Europe for this purpose. Mr. Myers' mission is to negotiate for the purchase of American rights to new products and processes that can be used to advantage by the textile industry in this country. Should Mr. Myers' quest be successful, the American Aniline & Extract Co. will offer the new lines in the early fall.

General Electric Employees Favor Unemployment Plan

More than 75% of the eligible employees of the General Electric Co. have voted to participate in the new General Electric employees unemployment plan, Gerard Swope, president of the company, has announced. In proposing to the workers this plan, under which the money will be raised by equal contributions from the employees and the company, it was stated that the plan would become effective upon an affirmative vote of 60% of those eligible at each works.

Major Carpenter Returns From Business Survey Abroad

Major Aaron E. Carpenter, first vice-president of E. F. Houghton & Co., Philadelphia, manufacturers of oils and leathers, has returned from an extended business survey in France, Germany, Poland, Russia, and England. Valuable data on European manufacturing and marketing conditions were secured.

In addition to its plants in France and Germany, the company has decided to build a small manufacturing plant in England. L. E. Murphy, president, has sailed for England to decide definitely the site of the new works and to make a general tour of inspection of existing plants.

General Refractories Opens Birmingham Office

General Refractories Co. announce that a new district sales office in Birmingham, Ala., opened on July 15. This office is located in the Empire Building and is in charge of Walter S. Stapler. This office will enable the company to more adequately serve refractory users in the southeastern territory.

Turner Construction Removes Offices

The Turner Construction Co. announces that on July 19, its offices were moved from 178 Tremont St. to 137 Newbury St., Boston, Mass.

Commercial Factors Corp. Holds Golf Tournament

The first annual golf tournament of the Commercial Factors Corp. was held at the Rumson Country Club on July 21. The President's Cup was presented by Mr. Blumenthal, the donor, to Harold Steiner, of Steiner & Son.

Changes in Foxboro Personnel

J. B. McMahon, Tulsa branch manager of the Foxboro Co., will hereafter make his headquarters at the home office of the company, Foxboro, Mass. He is to take charge of all field engineering service, and will be responsible for all direct sales effort.

G. B. Lane, former manager of the Detroit office, has succeeded Mr. McMahon as branch manager at Tulsa.

Obituary

Robert Jennings

Robert Jennings, owner of the Queen City Knitting Mills, Elmira Heights, N. Y., died at his home in Elmira on July 16. He was 68 years old. Mr. Jennings was the inventor of several appliances used in the textile industry.

Albert A. Smith

Albert A. Smith, retired designer for the Thorndike (Mass.) Co., died in Orange, Mass., on July 20, of heart trouble, after three months' illness. He was 83 years old and left no near relatives.

Levi Rascoe

Levi Rascoe, foreman until his retirement eight years ago of the tin shop and plumbing department of the Whitin Machine Works, Whitinsville, Mass., by which he was employed for more than 50 years, died in Whitinsville Hospital on July 11, as a result of a fractured hip sustained two weeks ago. He was 82 years old, a native of Cowensville, P. Q., Can., and had lived in Whitinsville for 58 years. He was one of the first master plumbers in that section, and was the holder of a number of patents and improvements.

New Dyestuffs

Newport Chemical Works, Inc., Passaic, N. J., has introduced two new vat colors, Anthrene Navy Blue Double Paste Fine and Anthrene Black RP Paste Fine. Anthrene Navy Blue is suitable for printing and dyeing on cotton, rayon or silk, and yields greenish navies, either as a self-color or in combination. The general fastness is said to be very good, while the fact that it is only slightly reddened by chemicking is of special interest; it is not dischargeable. Anthrene Black RP produces deep bloomy blacks on cotton or rayon piece goods when printed by the usual potash-paste methods. It is characterized by exceptionally rapid development in the ager and possesses very good general fastness properties.

The Dyestuffs Department of E. I. du Pont de Nemours & Co., Wilmington, Del., has recently placed on the market Sulfogene Brown RBNX, a sulfur color yielding clear, rich chocolate shades of brown. It is redder than the Sulfogene Cutches and yellower than the Sulfogene Bordeaux, making it useful as a base in the production of a wide range of browns. The product possesses good solubility and is suitable for dyeing in all types of machines. Dyed direct, it is stated to possess good fastness to ironing, rubbing, and dry steaming; and good fastness to acids, ammonia, washing, mercerizing, water, and perspiration. When aftertreated with copper, chrome, and acetic acid, the shade becomes appreciably bluer and the fastness to light, cross-dyeing, and washing are improved. Sulfogene Brown RBNX is suitable for application on all types of cotton goods, whether in the form of raw stock, yarn, or pieces; and on rayon where a color of this class is desired.

Carbic Color and Chemical Co., Inc., 411 Washington St., New York, announces a new type of chrome-printing blue, Brilliant Fast Cyanine R. This new color, which is a product of Durand & Huguenin, S. A., is said to be the first chrome-printing blue to give exceptionally bright shades and at the same time to have good fastness to light. These properties, together with good fastness to washing and chemic, make it of particular interest for the printing of pure and weighted silks with and without mordant. It is also suitable for both direct and discharge printing on cotton and rayon. Bright shades of olive, of good fastness, can be obtained by mixing Fast Cyanine R with the Chromocitronines; and bright violet shades, fast to water and stable against hydrosulfite, can be secured with Phloxine.

The National Aniline & Chemical Co., Inc., 40 Rector St., New York, announces two new dyes, National Alizarine Red S, a mordant dye, and National Solantine Red 8BL, of the Solantine group. National Alizarine Red S is applied by the after-chrome and chrome-bottom processes, yielding fast claret to maroon shades of nearly identical tone by both methods. It may also be used in the ortho-chrome method. This dye possesses very good solubility and leveling properties, and is said to be particularly well suited for dyeing hard-spun yarns and closely woven pieces, penetrating unusually well. Since it has all of the excellent fastness properties of the Alizarine dyestuffs, it is advantageously applied, alone or in combination, to wool in all forms, such as raw stock, slubbing, yarns, and pieces. National Solantine Red 8BL resembles National Solantine Red 8BLN in shade, but it is entirely different in its union-dyeing properties. This new product dyes animal fibers practically the same shade and depth as cotton, making it particularly desirable for use in the production of solid shades or unions. It is stated that it possesses excellent solubility and cold-dyeing properties, and that it levels and penetrates well. It is also suitable for the dyeing of rayon, and yields pinks of excellent fastness to light on rag and bleached sulfite stock.

Two products of domestic manufacture, Fastusol Blue GA and Algol Orange RFA Paste Fine, are announced by the General Dyestuff Corp., 230 Fifth Ave., New York. Fastusol Blue GA is a direct color producing a pure shade of blue with a greenish cast, and is recommended for both cotton and rayon. Its principal features include very good level dyeing properties and fastness to light. Raw stock, yarn, and piece goods may be dyed with this color either in self shades or in combination with other Fastusol colors. Vegetable fibers and rayon are dyed in a neutral bath with the addition of common salt or glauber salt. Fastusol Blue GA may be applied to pure silk with the addition of acetic acid, and it will not stain acetate rayon. When used for mixed fabrics, the cotton or rayon will be dyed considerably heavier than the animal fiber. Dyeings discharge to a pure white with Rongalite C.

Algol Orange RFA Paste Fine, the brightest of all vat oranges, is chemically identical with the well-known Algol Orange RF, but yields slightly brighter shades. It is suited for dyeing cotton or rayon and silk skeins, and is also of importance in printing. Shades produced with this color

re of excellent fastness to washing and chlorine and good fastness to light. Algol range RFA can be printed in the ordinary manner, but the pre-reduced method yields fuller shades. White discharges are produced with Rongalite C.

Chrome Fast Vesuvine BB, Chrome Fast Vesuvine 2R, and Novochrome Fast Brown 3RD, three new mordant specialties for printing on cotton, viscose, and mixed goods are announced by Carbic Color & Chemical Co., Inc., 451 Washington St., New York. These products, manufactured by Durand & Huguenin, are said to be distinguished from older types in that they are faster to soaping, chemic, and light. The Chrome Fast Vesuvines yield brown shades when applied in a neutral starch and gum-dragon thickening with the addition of acetate of chrome. Owing to their good solubility they are recommended for printing large surfaces and also for light shades. They are unsuitable for use with hydrosulfite. Novochrome Fast Brown 3RD is a highly concentrated color for the production of reddish brown shades. With hydrosulfite it discharges white. It is applied in a neutral paste with the addition of Indigosol Developer GA, potassium sulfocyanide, and acetate of chrome.

Katanol ON, an improved Katanol product for use in dyeing and printing, has been placed on the market by the General Dyestuff Corp., 230 Fifth Ave., New York. The advantage of this new type over Katanol O is that it leaves the cotton practically unstained. When dyeing basic colors, brighter shades are obtained than with the O brand, and when producing colored discharge effects on substantive dyeings, the colors are affected to a less degree. Katanol ON is also recommended for mordanting rayon and for the production of Aniline Black colored resists.

Fast Blue RR Base, a new product for producing blue shades on goods impregnated with various Naphtols of the AS group, has been put on the market recently by the General Dyestuff Corp., 230 Fifth Ave., New York. The base is suitable for the production of print-on styles and for piece dyeings. Applied on Naphtol AS, AS-D, AS-OL, AS-TR, and AS-E prepares, Fast Blue RR gives rddish to greenish blue shades said to be of excellent fastness to washing and rubbing and very good fastness to chlorine and light. The dyeings are discharged to a pure white with Rongalite C. On cotton-viscose mixtures the dyeings are of an even shade on both fibers.

New Chromazurine HB, a fast mordant blue for printing, is announced by the Carbic Color & Chemical Co., Inc., 451 Washington St., New York. This product, which was brought out by Durant & Huguenin, is characterized by its brightness of shade, excellent allround fastness, and good working qualities. It is stable against hydrosulfite and is chiefly recommended for discharge work, either as a self color or in combination.

Newport Chemical Works, Inc., Passaic, N. J., has placed on the market recently two new dyestuffs, Anthrene Blue 5G paste and Acid Anthraquinone Blue BGA.

Anthrene Blue 5G is a vat color yielding on cotton clear greenish-blue shades of excellent fastness to washing and light. In addition to cotton, which may be dyed in all stages of manufacture, rayon, pure silk, and wool may be dyed with this color. The product is useful in the production of mixed shades, especially for bright greens and for toning up blues and navies. It is not dischargeable.

Newport Acid Anthraquinone Blue BGA possesses the same excellent level dyeing properties as Acid Anthraquinone Blue RXO, but is greener in shade. It has excellent fastness to light, perspiration, stoving, and steaming; and may be applied by either the acid or afterchrome method. The product yields blue shades on pure silk, leaving effect threads of cotton or rayon white; animal fibers and Celanese are stained. It does not discharge.

Newport Direct Fast Orange W S, a new color for the production of brilliant orange shades on cotton or rayon, has been placed on the market recently by the Newport Chemical Works, Inc., Passaic, N. J. This dyestuff, while similar to Direct Fast Orange R S, is characterized by a much greater solubility, adapting it for application in closed machines. Cotton and rayon are dyed in neutral baths with the addition of common salt or glaubers salt; silk is dyed from acid baths to a yellow and duller shade than that produced on cotton. It is also applicable to chrome leather and paper, while color lakes are obtained with barium salts. Dyeings discharge to a slightly creamy tone.

Newport Chemical Works, Inc., Passaic, N. J., has placed on the market a new color, Newport Acid Anthraquinone Blue RXO, for the production of fast shades by either the acid or afterchrome method. In addition to giving dyeings of excellent fastness to light, washing, and fulling on wool, this product is said to be suitable for dyeing pure silk yarns and piece goods. Because of its good level dyeing qualities, it can be fed on at the boil when applied by either the acid or afterchrome method.

The Dyestuffs Department of E. I. du Pont de Nemours & Co. has placed on the market a new sulfur color, known as Sulfogene Navy Blue 4R. This is a reddish blue, similar both in regard to fastness and dyeing properties to Sulfogene Navy Blue RL, but redder and brighter in shade. Sulfogene Navy Blue 4R is said to be one of the best sulfur blues for cross-dyeing purposes. Due to its good level dyeing properties as well as its solubility, it is suitable for use on all types of machines.

New Books

SILK AND RAYON DIRECTORY AND BUYERS' GUIDE, 1930; John Heywood, Ltd., Manchester, England. Price 21s.

Owing to the increasing number of firms who are using rayon yarns in the manufacture of rayon in the manufacture of both woven and knit fabrics, it has been necessary to completely revise the former edition of this standard book. The list of trade names of branded merchandise has been extended and is now arranged in alphabetical order.

EMPLOYEE THRIFT AND INVESTMENT PLANS; 114 pages; National Industrial Conference Board, Inc., New York. Price $1.

The book is a report of study made by the National Industrial Conference Board of the employee thrift and investment plans instituted by companies in various fields of industry. It is frequently found advisable to supplement insurance, pension, and stock-purchase plans with some other form of savings fund. In this monograph the following types of plans are discussed: savings plans in cooperation with banking institutions, employer-employee savings and investment plans, and savings combined with loans. The attitude of employees to various plans is described and the benefits both to employers and employees are outlined.

1929 YEAR BOOK OF THE AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS; Howes Publishing Co., New York.

The present year book has been thoroughly revised, bringing up to date the reports of the progress made by the research committee of the organization and the tabulation of American dyes classified alphabetically and according to Schultz and Color Index numbers.

AMERICAN STANDARDS YEAR BOOK 1930; 104 pp., 7⅜x10⅝; American Standards Association, New York City.

Important progress in standardization work affecting major American industries is reported in this book. The work begins with an explanation of how American standards are developed, and follows with some typical A.S.A. projects, including specifications for fire hose.

Early chapters are devoted to usefulness of industrial standardization, facts about the American Standards Association, co-operation with trade and technical associations and with the government, international co-operation. The major portion of the book contains an index to A.S.A. standards and projects. For the textile industry this index refers to standardization of safety code and of specifications for cotton rubber lined fire hose, sheets and sheetings, woven-fabric tests, and blankets.

CLARK'S TEXTILE YEAR BOOK AND SOUTHERN TEXTILE DIRECTORY, 1930 Edition. Clark Publishing Co., Charlotte, N. C. $4. Cloth binding.

The initial edition of the above book, which will hereafter be published annually, contains an alphabetical listing of mills located in the South, showing the names and addresses of officers, the quantity of machines, and the products manufactured. Desirable statistics, including a classification of southern mills, world's cotton spindles and looms, the yearly increase in cotton spindles in the South, and Clark's annual spindle increase list, have been presented in the volume. Information is given on spindle hours by states, raw cotton and yarns, and the labor laws of Southern States.

INDUSTRIAL LUNCH ROOMS; 56 pages; National Industrial Conference Board, Inc., New York. Price $1.

The effect of nutritious food upon the health and efficiency of workers makes the provision of food-serving facilities in industrial plants an administrative problem. The purpose of this monograph is to provide information for executives who are faced with this problem. The subjects covered include a description of types of company lunch rooms, physical characteristics of the lunch room and its management, and lunchroom costs and accounting. There are given also a list of representative companies with employees' lunchrooms, and a manual of cafeteria operation.

LE LIN; 412 pages; Societe de Propagande Coloniale, Paris, France. Price 50 francs.

This book on the culture and uses of flax and linen discusses the reasons for the decreasing use of linen in textiles and the methods for remedying this condition. Among the subjects treated are study of the flax plant, world flax culture, manufacture of linen, linseed and its products.